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With Dr. M. Bennett
OVER DARIEN

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REPORTS

OF THE

MANAGED DARIEN EXPEDITION

OF 1854,

WITH

SUGGESTIONS

FOR

REVEY BY COMPETENT ENGINEERS,

AND

AN EXPLORATION BY PARTIES

WITH

COMPASSES.



LONDON:

THAM WILSON, 11, ROYAL EXCHANGE.

1856.

OVER DARIEN.

TO THE EDITOR OF THE SUN.

SIR,—The war being now happily concluded, I think this a favourable opportunity again to bring forward the subject of the Darien Ship Canal, and to state the grounds upon which I feel justified in calling upon the Governments and capitalists of England, France, and the United States to cause a detailed survey to be made of the narrow Isthmus between Caledonia Bay and the Gulf of San Miguel. It will be therefore necessary to give a brief account of the late deplorably mismanaged Darien expedition, which I accompanied, although permitted by those who had actually undertaken it at my instigation to have neither position nor authority in its conduct. From this it will be seen that, instead of a single well-arranged expedition, there were three unconnected explorations in different directions, none of them brought to a conclusion, and two of them conducted without the use of compasses.

Towards the close of 1853, it was arranged between the Governments of Great Britain, France, and the United States, that a man of war, and a staff of engineers from each nation, should be despatched to the Atlantic coast of the Isthmus of Darien, to assist the engineers of the Atlantic and Pacific Junction Company of London in making a survey of the tract of country between Caledonia Bay and the Gulf of San Miguel.

1. GISBORNE'S EXPLORATION.

Accordingly her Majesty's ship *Espiegle*, 12 gun-brig, Commander Hancock, sailed from Jamaica on January 17th, 1854, conveying Mr. Gisborne, the company's engineer, who commanded the expedition; Lieut. St. John, R.E., and myself, and anchored at Caledonia Bay on the 21st of January. The French war steamer *Chimère* (avis), Captain Jaureguibery, and her Majesty's surveying ship, *Scorpion*, 6, Commander Parsons, arrived the following day.

Messrs. Forde, Bennett, Devenish, Armstrong, and Bond, engineers of the Atlantic and Pacific Junction Company, had previously sailed from St. Thomas to Aspinwall, Navy Bay, whence they proceeded to Panama, the Gulf of San Miguel, and the Isthmus. On that river, at its junction with the Lara, Mr. Bennett established a station, whence he surveyed the country as far as the Chuquanaqua.

On rounding Isla del Oro, or Golden Island, which forms the north-west entrance to Caledonia Bay, I, at least, was not surprised to see the United States' sloop of war *Cyane*, 26, Captain Hollins, lying at anchor in the channel of Sassardi; for a long delay had occurred at Jamaica, which I had predicted, would result in the American engineer proceeding on his own account, without taking cognizance of the fact that the English and French engineers were on their way to join him. Such we found to be the case, Captain Hollins informing us that Lieutenant Strain, of the United States' navy, had landed three days before our arrival, without leaving any message for Mr. Gisborne, or saying what course he intended to pursue. To this separate action must be attributed the dreadful sufferings of Lieutenant Strain's party, who wandered along rivers' banks for sixty-seven days, viz., from January 19 to March 26 (subsisting for most of the time on the acid nuts of the trupa palm), and were at last tracked out and rescued from their perilous position by the boats of H.M.S. *Virago*, which were despatched from the *Savana* in search of them.

Immediately after our arrival, Dennis of Sassardi, Patterson of Carti, a young man named Robinson, who styled himself Secretary of State to Caloga, the old chief at Rio Diablo, in San Blas Bay, and some other Indians from Carreto, &c., came on board, and, after a short "pow-wow," gave their consent to our landing and surveying the country.

On the 24th of January we landed on the west side of the Point of San Fulgencio, where Captain Hollins had already caused a well to be dug. The party consisted of Mr. Gisborne, Lieutenant St. John, Lieutenant Preston, and twelve sailors of the *Espiegle*; Captain Jaureguibery, Lieutenant de Vaisseau Oron, and twelve of the crew of the *Chimère*; Dr. Edwards, assistant surgeon of the *Espiegle*; Col. Codazzi, engineer of the New Granada Government, and myself. A short path through the bush behind the point brought us to the sand-beach of Caledonia Bay; after walking along which for a mile we arrived at the mouth of the Aglaseniqua, over which the surf breaks; and half a mile further to the south-east, at the mouth of the Aglatumati, or Caledonia River, where there were five abandoned huts and a few canoes. In both these rivers there is always excellent water. From this point the engineer (instead of taking, as I had always advised, a compass course through the bush, notching the trees with a *machete* as he went, first to the westward, into the pass through the Cordillera, and then south)* guided the party up the river to its junction with a large tributary from the east, where we found two abandoned huts in a cacao plantation, at which we stopped that night. The next day, January 25, continuing to follow up the river, wading in

* Once out of the pass, the course is S.W.

its bed to avoid the dense-tangled forest on its bank, we passed a small stream joining it from the west, very shallow at its mouth, but deeper above it; and just above this, the large village of Agla, consisting of about twenty huts, which were abandoned. About two miles higher up, we came to two huts and several canoes. In those huts everything was carefully packed up, as if for removal, and the still warm embers of the fires showed that the occupants had fled in haste upon learning that we were coming up the river. In one of the huts I saw three fowling-pieces, a double-barrelled gun, and a rifle, but could find no arrows; and I recognised a camphor-wood trunk, that I had made a present of to Juan Seva, of Caledonia River, in 1852. It was impossible to tell whether this abandonment of their settlements by the Indians was merely owing to their shyness of white men, or was an evidence of hostility. Higher up the river had many rapids, and was obstructed with boulders of rock, with very deep water between them. Having ascended it until it became evident that we were too far to the eastward, and on too high ground, we built a rancho or shed of troolie palm-leaves, and encamped on the east bank, about ten miles S.S.E. from Caledonia Bay, as I estimated. On the 26th, Col. Codazzi and Mr. Gisborne, leaving the main body at the camp, conducted a party of five, whom Mr. Gisborne most reluctantly allowed me to accompany, across the Cordillera, there about 900 feet high, to a river at its Pacific foot, called the Chueti, which is a tributary of the Chuquanaqua, eastward of the Suebti. This river, Col. Codazzi, though he had a Spanish map from the archives of Bogota, mistook for a branch of the Caledonia, forgetting the fact that we had crossed the Cordillera. That night we encamped on the Chueti, and the following morning returned across the mountain to the camp. The same night Mr. Gisborne and Capt. Jaureguibery returned to the ships with some sailors for the purpose of seeking an Indian guide. Having failed to engage a guide, Mr. Gisborne sent us upwards of a hundred Granadian soldiers and convicts who had lately arrived from Carthagena. He directed us to remove lower down the river, and returned on the 1st of February, when we moved still lower down to the above-mentioned branch on the west bank. Here we encamped a night in a plantation of cacao trees (*theobroma cacao*), opposite the village of Agla. On the 3d of February we followed up the stream to the foot of the hill, which forms the dividing ridge between the Aglaseniqua (which runs parallel to and about a mile west of the lower course of the Caledonia), and the Sucubti, a branch of the Chuquanaqua. This hill, called by the Indians Agla, is, consequently, the watershed between the Atlantic and Pacific; and between it and the immediately adjacent ridge, which runs north-west from it in a direction parallel to the shore of the channel of the Sassardi, is the valley which I have always directed attention to, as affording the greatest facilities for a ship

canal communication. This valley is most distinctly marked in Commander Parsons' *Survey of Caledonia Harbour and Port Escoces*. Mr. Gisborne, with the French and Granadian party, guided by Colonel Codazzi, went considerably in advance, the sailors from the *Espiegle*, whom I was directed to accompany, following the notches they made on the trees. These, which I had some difficulty in making out in so dense a forest, led us up the hill by a sudden and steep ascent to its summit, which was very narrow, and along the summit for about a mile, in the course of which we passed three considerable depressions. From the highest point we had a glimpse, through the trees, of Caledonia Bay, and we passed the Indian trail, which leads down the Pacific side of the hill to the Sucubti, and which Colonel Codazzi ought to have struck into. However, the notches made by Mr. Gisborne's party, instead of following that direction, led us, to my great surprise, down the same (north) side that we had ascended to a small river at its foot, where we overtook Colonel Codazzi. This river I immediately recognised as the Aglaseniqua. On informing Colonel Codazzi of this, and that we were still on the Atlantic side of the Cordillera, he became enraged, said it was the Forti (which with another stream forms the Sucubti), and added that I knew nothing of the country. Although I showed him that the course of the river was to the north, as he could see by his own compass, he still proceeded down its bed (which was very rocky, and in many places so deep that we were obliged to cut our way through the bush on the banks), under the impression that he was guiding us down the Sucubti to the Pacific! It was not until we arrived within two miles of the Atlantic, and until the sailors had reported that they heard the surf of the sea, that he discovered his mistake—if mistake it was—for it appeared to me that there was more of design than stupidity in this very experienced bushranger leading us back to the point we started from; the mouth of the Aglaseniqua being only half a mile distant from the mouth of the Caledonia. It being late in the evening when Col. Codazzi, after summing up all the compass bearings of the river we had waded down, and the distances which he had measured, came to the conclusion that we were only two miles from the Atlantic, and the whole party having been marching, heavily laden, since daylight, we encamped, and the following morning, February the 4th, having waded down the Aglaseniqua, mostly up to our waists in water, to the sea, we returned to the ships, to the disappointment of all. In the whole course of this beautiful river, from its source to its mouth, we could find no trace of an Indian: it is totally uninhabited. At its mouth are the cocoa-nut trees, planted by the Spaniards, who occupied the fort of Carolina from 1785 to 1790.

On my arrival on board I demanded of Mr. Gisborne and Commander Hancock permission to guide the party, which being

refused, I requested a party of three seamen, with whom I volunteered to cross over to the Pacific and return. Commander Hancock, in reply, most decidedly refused to let me take a man ashore, stating that "his instructions were to protect a survey, and not to send out exploring parties." In conclusion, he desired me to go alone. I was, consequently, about to start the following morning, when I was prevailed upon by the officers of the *Espiegle* to decline the service; they represented to me that my going alone was quite unnecessary, as there were then 800 men in harbour doing nothing, and that it could only result in the sacrifice of my life, as the Indians had spies out along the line; a fact proved by the murder, a month previously, of Prevost's four men.

On the 7th of February, Mr. Gisborne, Lieutenant St. John, Serjeant Bell, and a Venezuelan servant of Colonel Codazzi started for the Suebti and Savana, with a guide and Robinson the Indian, who, for the sum of six hundred dollars, went as security for their lives. This Robinson, who acted for the chief of San Blas, had just returned from the United States, where he had lived for some years. His father, who died in 1853, is mentioned in page 71 of my book. This party, which I was not allowed to accompany, arrived at Mr. Bennett's station on the Savana on the morning of the 11th February, having been detained a whole day at Suebti village, waiting for a guide to conduct them thence to the path cut, six weeks before, by Commander Prevost, from the Savana to the Chuquanaqua, at a point opposite the mouth of Morti, the next river westward of the Suebti. Thus they crossed the Isthmus in three days' walk.

In crossing the Cordillera to Suebti, this party followed the Indian trail, which passes over the highest ground, and traversed the only portion of the country which presents any engineering difficulties, in a few hours.

From these circumstances, and from their very cursory and fugitive inspection of a country, which is one unbroken forest of heavy timber and tall brushwood, where the explorer can scarcely see ten yards ahead of him, it was manifestly impossible for the engineers to make any search for the valley which transversely divides the Cordillera; consequently, they were unable to collect any data upon which to form an opinion as to the practicability of the canal.

This is the view taken by Baron Humboldt, who, in a letter to F. M. Kelley, Esq., of New York, dated Berlin, Jan. 27, 1856, and published in Kelley's pamphlet on the Junction of the Atlantic and Pacific Oceans, edited by Ch. Manby, Sec. Inst. C. E., says, "It was on account of his not having made so thorough an examination of the mountainous country between the Gulf of San Miguel and Caledonia Bay that Mr. Lionel Gisborne's plan of 1852 could not be carried out. The ignorance he was in as to the

localities, and the absence of measurements of altitude, led to the unfortunate issue of the courageous expedition of Lieutenant Isaac Strain."

Any person who has travelled much in hilly countries, especially such as are covered with brushwood, will understand the difficulty of striking into a narrow valley. Having been lately engaged, in a medical capacity, with the Turkish and Tunisian troops, chiefly in Armenia, Lazistan, Mingrelia, and Circassia, I had several instances of this difficulty. Any one who has been at Sukhum-kalé will recollect the remarkably deep valley behind the hill on which the Russian fort stands, separating it from the mountain farther inland. The existence of this valley would never be suspected by any one who did not actually look down into it from the fort; and I have twice, when on the plain below, passed it by unseen, though closely searching for it.

However, under the difficult circumstances in which they were placed, it was impossible for the engineers to make any attempt at a survey. On their arrival at Sucubti they found themselves in a most dangerous dilemma with the Indians, in consequence of a false report that the Chimère had carried off Dennis and two other Indians prisoners. Upon learning this I instantly proceeded to Dennis (who was, I believe, himself the author of the report), and obliged him at once to despatch a special messenger to contradict it.

After Mr. Gisborne's departure nothing whatever was done, except that Commander Parsons continued his survey of the harbours, which he pronounced to be admirably adapted for the terminus of a great ship canal; and, although, after her Majesty's ship *Devastation* reinforced the expedition, there were upwards of 900 men in Caledonia Bay, not a man would be allowed on shore, notwithstanding the enthusiasm of the crews to accompany me "to the other side of the land." They naturally wondered what they were sent to Darien for.

Nothing having been heard of Mr. Gisborne since the 9th of February, when he wrote from the Sucubti, stating that he was in danger, and feeling very tired of the forced inaction to which I was reduced, I engaged a passage, on the 22nd, in the Granadian schooner, *Bolivar*, to Carreto, with the intention of inducing some of the Indians there, with whom I was acquainted, to accompany me in search of the missing parties of Strain and Gisborne. Upon informing Commander Hancock of my intention, he gave strict orders, in my hearing, that I was not to be allowed to go on board the schooner on any account. Finding that I was a prisoner on board the *Espiegle*, I made my escape from her in an Indian canoe, at daylight on the 23rd, and repaired on board the *Scorpion*. Shortly afterwards Commander Parsons received an order, of which I have a copy, from Commander Hancock, desiring him to send me back to the *Espiegle* immediately; to this he replied that as I was a civilian, he would not under-

take the responsibility of sending me by force of arms. After some delay Commander Hancock signalled "he may remain on board." I then, as the only representative in Caledonia Bay of the Atlantic and Pacific Junction Company, addressed a circular to Commander Hancock, Captain Jaureguibery, and Captain Hollins, requesting them to consult together and take measures for sending a party from each of their vessels in search of Strain and Gisborne, and offering every assistance in my power. Soon after I had forwarded these letters, with the full approval of Commander Parsons, to whom I had submitted them for perusal, an officer, with a boat's crew, came on board with orders to him from Commander Hancock to send me back by force of arms if I refused to go voluntarily. As I decidedly refused to return of my own will, I was thus brought back a prisoner, previously entering a protest against this illegal arrest in the log of the *Scorpion*. On my return to the *Espiegle*, Commander Hancock assailed me with the most violent and threatening language, and decided, as he was going to sail the next morning for Carthage, to leave me until his return on an islet, near Golden Island, with Mr. Grant, the second master, and two coloured servants of Gisborne who did not know how to pull an oar. However, the next morning, as I objected to being left on the islet, he sent me back to the *Scorpion*, first cautioning me, under penalty of martial law, not to land on the coast, nor to hold any communication with the Indians.

Dr. McDermott, R.N., late of the *Espiegle*, is now in London, and can corroborate all the above statements; as also can Mr. Grant, Mr. Doyle, and other gentlemen who were officers of the *Espiegle* and *Scorpion* at that time, and are now in England.

Under these circumstances I decided upon going round to the Gulf of San Miguel and the Tuyra, by way of Panama, and starting from the Pacific side in search of Strain and Gisborne. I, therefore, by the personal solicitation of Commander Parsons, obtained a passage in the *Cyane*, and sailed in her on the 25th, arriving at Aspinwall, Navy Bay, on the 28th. There, finding that I had incurred imminent risk of a "lynching," on account of the then industriously reported loss of Strain's party, and being cautioned by some friends not to proceed to Panama, I only remained until the 3d March, when, having learned of Mr. Gisborne's safe arrival on the *Savana*, I sailed in the *North Star* for New York.

Such was the manner in which the attempt to investigate the grand question of inter-oceanic navigation was carried out, and such the way in which I was rewarded for my five years' laborious, perilous, and ruinously expensive efforts in the promotion of the grandest project of the age.

I will only say, in my own vindication, that whilst instead of an impartial exploration of the country, valuable time was lost

in the attempts made by some to find a route in a line different from that laid down by me, and thus to appropriate to themselves the results of my labours; and whilst my statements were set down, without examination, as exaggerated, I was, by actual force, prevented from availing myself of any opportunity of demonstrating their accuracy.

2. STRAIN'S EXPLORATION.

As to the American expedition, it appears from the account given in "Harper's Magazine," of New York, for March, April, and May, 1855, that Lieut. Strain landed from the *Cyane* on the 19th of January, 1854, with twenty-seven men, six of whom were "volunteers" from the Panama railroad and other companies, whose interests were antagonistic to the projected canal. Two of those "volunteers," with three of the party from the *Cyane*, contrived to separate from Strain on the third day, and found their way back to the *Cyane*. From thence they proceeded to Aspinwall and New York, where they published premature and unfounded reports of the loss of Strain's party, and exaggerated statements of the impracticability of the canal. After this separation Strain's party consequently consisted of twenty-two men. On the third day, after having been two days seeking a passage from the Caledonia, they returned to its west branch, ascended the hill (Agla), and, crossing it, arrived on the fourth day on the Sucubti. On the fifth day they found three Indian huts on the Sucubti just abandoned and on fire.

The sixth day they arrived at the village of Sucubti, where they found the remains of seven canoes, which had just been destroyed, for they heard the sounds of the axe as they were approaching. The same day they reached the Chuquanaqua, and met five armed Indians, who came up and shook hands with Strain.

"Two of them, one of whom spoke Spanish and the other English, he recognised as having been on board the *Cyane* shortly after her arrival in Caledonia harbour. The leader informed Strain that he was on the Chuquanaqua instead of the Savana, but offered to guide him to the latter. In answer to a question respecting the distance, he replied that he could reach it in three days." On the eighth day, the guide told Strain "that he had taken an interest in him when they met on board the *Cyane*, and did not wish him to follow the Chuquanaqua, which was a very long route to the Pacific. He still declared that they would reach the Savana in a day and a half, and the harbour in Darien in two days and a half; but Strain could not induce him to give the name of the river on the banks of which they then were." Had he taken a copy of my map with him he would have learned that he was then on the Artuganti or La Paz river, within three miles of the head of the Lara, and twelve miles of Mr. Bennett's station, at the junction of that river with the Savana. He would

also have found that the Indians were guiding him faithfully and in the most direct line. That same day, not being able to keep up with the pace of the Indians, he lost sight of them; and "after waiting some time to see if they would return," he committed the disastrous error of returning to the Chuquanaqua, influenced by an unfounded suspicion of the treachery of the Indians. Here again, had he ever seen my map, he would have comprehended at a glance, from the exceedingly tortuous and sinuous course of the Chuquanaqua, how gloomy was the prospect of reaching the Tuyra and Pacific by following down its banks.

From the 28th of January to the 13th of February the party followed the course of the Chuquanaqua. On the latter day Strain, with three of the strongest, left them in order to push on in advance, and endeavour to reach Yavisa, the Granadian capital of Darien, situated a little above the confluence of the Chuquanaqua and Tuyra. From thence he expected to be able to send them provisions and assistance. On the 9th of March Strain and his comrades reached Yavisa, where they were carefully attended to by the Jefe Politico and the Alcalde. He then proceeded to the Tuyra and Savana, and reached Bennett's station on the 13th. On the 18th Mr. Bennett and Strain, with the boats of the Virago, passed Yavisa, on their way up the Chuquanaqua, and on the 26th of March Strain's men were found on the banks of that river in a deplorable condition from famine. Altogether five of the party died from starvation and hardship. The remainder of this gallant, but misguided, band reached New York in the Cyane.

Mr. Headley, the writer in "Harper's Magazine," asserts that Strain was misled by Gisborne's map and mine. Now in Gisborne's map there is a red line drawn in a S.W. direction from Caledonia Bay to the Gulf of San Miguel; and in both of my maps there is a S.W. line, marked *line of proposed canal*, drawn from Caledonia Bay to the junction of the Lara with the Savana—the point which Mr. Bennett afterwards selected for his station. If he had followed the course laid down in those maps, he would have reached the Savana and the Gulf of St. Miguel in four or five days of much less painful travelling than he encountered along the Chuquanaqua.

The fact is, he never saw any of those maps. If he had ever looked at a map of Darien, or read anything about it, he would not have brought down the great number of jackasses and mules, with which he encumbered the decks of the Cyane, under the impression that there was a road, and that he could ride across the Isthmus. Mr. Headley also states that I "utterly ignored the Sucubti." On the contrary, not only is that river most legibly marked on my map, but a great amount of information regarding it is given in various passages in my book. I, therefore, in letters to the *New York Courier and Inquirer*, refuted his assertions, and called upon him to retract them. On the whole, considering

that Lieut. Strain deliberately chose to act independently of the English and French engineers, who had been led to expect his co-operation, and to dispense with the assistance they could have given him; that he started upon an expedition into a wilderness, without furnishing himself with any of the necessary preliminary information; and, moreover, that he was commissioned by his Government to perform a difficult and dangerous service, strictly within the limits of his professional duty and on American soil, and that in accepting such commission, he was in no way influenced by any statements of mine; I cannot admit the justice of the censures that have been heaped on me for the sufferings of his party. I own I am surprised to find that Lieut. Strain, whose party were discovered thirty miles to the east of the Canal route, and who admits he never had any idea of his whereabouts, has published a map of the route, with a section of the Isthmus!

3. PREVOST'S EXPLORATION.

The exploration from the Pacific side had no connection whatever either with the expedition under Mr. Gisborne or that under Lieut. Strain, and requires separate notice. Commander Prevost, of her Majesty's steamer *Virago*, sailed from Panama on Dec. 16, 1853, and arrived in the Savana river on the following day. On the 18th he proceeded up the river with a party of 15, including Messrs. Kemish and Nelson, "volunteers," interested in the rival route *viâ* the Atrato, and passing the Lara mouth, the site of Fuerte del Principe, and the mouth of La Villa, he built a rancho a little above the latter. From thence he advanced in a N.N.E. direction, cutting a path as he went. After 11 days' journey, in which he had proceeded 22 miles over a level country, crossed by a single ridge from 50 to 60 feet in height, he arrived at the bank of the Chuquanaqua, opposite the mouth of Morti. Here, the provisions being much reduced, he sent four men back to the ship, left four at the rancho (No. 10), and proceeded across the river, on his course, with the remaining seven. In the first day's march, on the Atlantic side of the Chuquanaqua, he reached a hill 80 and another 120 feet high. From a tree on the summit of the latter, his native guide, Maria, reported a distant view of the Atlantic to the N.W., and mountains to the N. and N.E. Instead of altering his course to the N.W., he proceeded in the N.N.E. direction, ascended the Cordillera to an elevation of 800 feet, and then descended it to a river running into the Atlantic, most probably the Aglaseniqua. His provisions being then nearly exhausted, he returned to the Chuquanaqua, though being within a few miles of the Atlantic, and reaching rancho No. 10 on the third day from the date of his leaving the four men there, was horrified to find the bodies of three of them laid across the path. They were shot, stabbed, and had their throats cut. According to the opinion of Dr. Ross, they had been forty-eight hours dead. This dreadful event naturally exciting alarm for

their own safety, they returned in haste to the Savana, traversing the country from the Chuquanagua to that river in 18* hours. Commander Prevost then returned on board and sailed for Callao on the 7th of January, 1854. The *Virago* returned from Peru, subsequently, under Commander Marshal, who fortunately despatched a boat's crew to the rescue of Strain's party.

During the whole of his journey Prevost met neither Indian nor habitation; but, before he detached the four unfortunate men he saw the traces of Indians, and heard a chopping in the bush, and some shots fired. It is deeply to be regretted that he had not sent his native guide, who was an Indian, long domesticated with Granadians, to ask the consent of the Indians to his entering their territory, and to announce to them the nation he belonged to. Upon my examining the Indians in Caledonia Bay and Sassardi upon the subject of the murders, they stated that the Indians thought the men were Spaniards, seeing they had arms in their possession, and that if they had known they were Englishmen they would not have harmed them. They said that the fourth man was also killed, and that if his body was not to be seen it must have been carried off by a tiger. The Indians of Sucubti arrested the murderers afterwards, and offered to send them to Panama for trial.

It has been said that I represented the Indians as friendly. I have said that they are friendly to the English, "but do not allow them to land on the coast."† I have always stated that it would be absolutely necessary to get their consent before landing any party on their territory, and it never was anticipated by Mr. Gisborne or the company that any officer would have landed from the Pacific side.

It will be seen by the dates that Commander Prevost started on his exploration thirty-five days, and sailed off again fourteen days, before the arrival of the *Espiegle*; whereas no vessel was expected on the Pacific until after the arrival of the expedition on the Atlantic side.

4. RESULTS.

Notwithstanding the expedition thus failed, from want of concert between the leaders and their inaction and incapacity, to make a survey from sea to sea, and has thereby left the practicability of the canal "still an open question," it is consolatory to know that the practical results of the several unconnected explorations, so far as any reliable and accurately ascertained data have been obtained, are satisfactory. They are—

1. That the harbours of Port Escoces, Caledonia Bay, and the Channel of Sassardi, extending continuously along the Atlantic coast of the Isthmus of Darien for eleven nautical miles, present,

* Eleven hours only, according to the accurate journal of Dr. Ross.

† "Isthmus of Darien Ship Canal," p. 66.

from their depth of water, freedom from shoals, and great security, safe anchorage in all weathers, and that each is admirably adapted for the terminus of a great ship canal, as proved by the "*Survey of Caledonia Harbour and Port Escoecs*," by Commander Parsons, of her Majesty's ship *Scorpion*, published by the Hydrographic Office in 1854. Captain Hollins, of the *Cyane*, has also spoken highly of their capabilities. The existence of those noble harbours, which had never been entered by British, French, or American men-of-war before the arrival of the late expedition, was almost unknown to navigators until I directed attention to their merits.

2. That the Gulf of San Miguel, on the Pacific side, is only excelled on the West Coast of North and South America, by the port of San Francisco, as will appear on reference to Captain Kellett's Chart.

3. That "Darien Harbour," as they have recently named the magnificent estuary formed by the confluence of the Savana and Tuyra, previous to their opening into the Gulf of San Miguel, by the mouths of Boca Chica and Boca Grande, is perfectly land-locked, has great depth of water, and perfectly safe entrances, as verified by Captain Kennish and Mr. Nelson, C.E., who accompanied Commander Prevost, and took soundings.

4. That the Savana river is navigable for several miles above its mouth, which is free from bars, and has nine fathoms of water at low tide, as results from the observations of Messrs. Bennett, Devenish, Armstrong, and Bond, who found my soundings to be correct.

5. That, from the Savana to the Chuquanaqua, the ground is low, with the exception of a single ridge of from fifty feet to sixty feet elevation, as stated in the "*Official Report of Commander Prevost of H.M.S. Virago*," read before the Royal Geographical Society of London, April 24, 1854.

6. That according to the same Report, beyond the Chuquanaqua there is one hill 80, and another 120 feet high, and that from the summit of the latter the Atlantic was seen, bearing N.W.; so, that in a N.W. direction between the hill and the Atlantic there is no elevation of importance, but on the contrary a depression occurs in the line of the Cordillera. A N.W. line, drawn from that hill to the Atlantic, would terminate in the channel of Sassardi, a little west of Sassardi village. This corresponds precisely with the statement I have made in page 73 of the "Isthmus of Darien"—viz., that "A little west of Sassardi, there is a deep valley in the Cordillera of the coast."

7. That, according to the medical reports of Dr. McDermott, of the *Espiegle*, and Dr. Brownlow, of the *Cyane*, Caledonia Bay is healthier than any station in Central America, no sickness having occurred in any of the ships or amongst any of the parties on shore.

8. That no hostility need be apprehended from the Indians, if

their consent to land on the Isthmus be obtained, as proved by Lieutenant Strain traversing, in perfect safety, the whole country of the Chucunas, the most populous and hostile tribe of Darien Indians.

I am confident that the result of a survey would prove that, as I stated six years ago, there is a Valley in the Cordillera, between the headwaters of the Aglaseniqua and the Sucubti, through which it would be quite feasible to cut a Canal, and I am firmly convinced that a careful survey of the four or five miles which separate those rivers is all that is necessary to establish the practicability of the Canal, and decide a question so important to the commerce of the world.

I remain, sir, your most obedient servant,
EDWARD CULLEN.

11, Royal Exchange, Aug. 22.

Sun, Aug. 29, 1856.

The charter of universal dominion over the waves, and of never-ending freedom for Britons, with which, according to our great national strain, Britannia is endowed, would seem to be accompanied by a licence, by way of drawback, of which Britannia, or rather those who manage her affairs, freely avail themselves, to her infinite detriment, and that is evermore to subordinate merit to favour, and keep the right man out of the right place.

The perusal of a communication from Mr. EDWARD CULLEN, which appears in our present impression, describing the results of the late so-called exploration of the proposed canal route to communicate between the Atlantic and Pacific Oceans, furnishes a remarkable illustration in support of our hypothesis—an illustration which, taken in connection with other circumstances, goes far to establish it as a fact. The world-wide importance of a communication between the two oceans is everywhere admitted, and that it would be of immense value to us is also placed beyond dispute. Under such circumstances, common sense, we imagine, must have indicated the propriety of sending men of first class and approved ability to undertake the exploration required. How little common sense had to do with the appointment of Mr. GISBORNE and Capt. HANCOCK, let the readers of Mr. CULLEN's letter determine. Never, we incline to think, did self-sufficiency and incompetency for a peculiar task—we say nothing of their general ability as professional men—more signally expose individuals to the observation and the derision of the world. The right man to have led the exploring party was surely one who, like Mr. CULLEN, knew something about the country, and had some inkling of the route to be pursued. Perhaps on that very account Mr. GISBORNE, like the donkey who the more he was beaten the more he would'nt go, obstinately

refused to avail himself of Mr. CULLEN's experience at all, and the more foolish appeared his resolve, the more pertinaciously persisted in it. The result was, the party wandered in the first instance in a circle, and on arriving at their journey's end found themselves, not within sight of the Pacific, but of the Atlantic—not at the goal, but at the point from which they started. Mr. CULLEN's direction, one would have thought, would by this time have been in request. By no means. He knew too much for official vanity, and must have his presumption rebuked! "Let me guide the next party," was his entreaty. "By no means," exclaims Mr. GISBORNE. "No!" thunders the illustrious Commander HANCOCK. "Land me three seamen and I will undertake the survey myself." "My instructions," replies the Commander with austere dignity, "are to protect a survey, and not to send exploring parties." Admirable disciple of routine—judicious servant of the public! The resolute CULLEN resolves to start alone, but the officers of the *Espiegle*, fearing lest his life should be taken, as were the lives of some of PREVOST's party, persuade him to revoke his determination.

The great GISBORNE—for if self-reliance don't make a man great, what will?—starts on the 7th February (the landing took place on the 24th January) with a small party, under the guidance of a native, on a second exploration. This time he reaches the other side, and hails the shores of the Pacific at the expiration of three days' walk. How severely his engineering abilities were tested, and how signally they were manifested, let what follows describe:—"In crossing the Cordillera to Sucubti, this party followed *the Indian trail, which passes over the highest ground*, and traversed the only portion of the country which presents any engineering difficulties *in a few hours!* From these circumstances, and from their very cursory and fugitive inspection *of a country which is one unbroken forest* of heavy timber and tall brushwood, where the explorer *can scarcely see ten yards ahead of him*, it was manifestly impossible for the engineers to make any search for the valley which transversely divides the Cordillera; consequently they were unable to form an opinion as to the practicability of a canal." So thinks Baron HUMBOLDT, and so will others beside the Baron. The results were—the practicability of crossing the Isthmus by the Indian track in three days was established by Mr. GISBORNE, and the impracticability (?) of the proposed canal route was made "as clear as mud." The remainder of the narrative we pass over, including, though it does, some scurvy treatment of the too earnest and knowing Mr. CULLEN by Commander HANCOCK—remarking, however, that Commander PARSONS surveyed the harbours, and found them admirably adapted for the termination of a great ship canal.

We might have stated at the outset—had we not preferred to direct attention, in the first place, to the GISBORNE exploration—

that, as originally planned and arranged, the exploration was to have been carried on under the auspices of England, France, and the United States, each of which Powers contributed a man-of-war and a staff of engineers. The commander of the American vessel, however, was "tarnation" too great a man to do anything save on "his own hook," and accordingly left the Britishers and Frenchers behind, and made a tour on his own account. The miserable vanity of the man met with by no means an inappropriate punishment. He and his party wandered out of the way, and after undergoing great trial, never got into it, but were, after "many days," discovered thirty miles to the east of the canal route! Grabbing at all the glory, the brilliant Yankee sank up to the neck in a quagmire, with the national flag drooping over his aspiring head, instead of flaunting invidiously in the breeze before the discomfited French and Britishers. In striking contrast is the conduct of the French commander, who appears to have acted with a sincere desire to promote the object for which he and his party were sent out by their Government. Into the particulars of the third exploration we have neither time nor space to enter. Suffice it to say, that the practicability of the Darien route seems to be sufficiently well established to call for a practical survey by a competent engineer under the guidance of Mr. CULLEN, to whom the command of the exploring expedition ought to be, as it should have been in the instances to which we have referred, entrusted, he having surveyed the country previously for almost the entire distance at his own expense. It is not yet too late to redeem the past, and recompense him for the ill usage he has experienced, as well as the services he has both rendered and tendered to his country. Surely we have had enough of favour, routine, incompetency, and personal vanity. Let the public at last have its gorge stayed by the appointment of a competent person to undertake so important a task, and not again be subjected to the mortification which the failure of the GISBORNE Exploration occasioned. Not only the interests of Great Britain, but the interests of the wide world, are involved in the establishment of a canal communication between the two seas. Littleness never looks so little as in connection with great things.—*Sun*, Aug. 29, 1856.

THE DARIEN EXPEDITION.

TO THE EDITOR OF THE SUN.

SIR,—I have carefully read, in your impression of yesterday, Dr. Cullen's Report of the Darien Expedition of 1854, in which he refers to me for the accuracy of the statements therein, concerning the treatment he received in Caledonia Bay.

Having been on board H.M.S. *Espiegle* during the whole time

the expedition remained in Darien, I was fully cognisant of all the circumstances he relates and can vouch for their strict accuracy.

His account of the English and French exploration coincides exactly with that given to me by the officers who accompanied it.

In every instance in which I had an opportunity of testing Dr. Cullen's original statements, which led to the organisation of the expedition, I found them to be strictly true; and in that point in which I was more particularly interested, viz., the healthiness of the climate, I fully coincide with him—not a single case of sickness having occurred either amongst the men who formed the exploring parties, although they were constantly wading in rivers during the day and lying on damp ground at night, or amongst the crews of the ships in harbour. I shall publish my report on the climate at an early date.

As to the levels and the feasibility of the canal, I have, from the deck of the *Espiegle*, and different positions in the harbour, distinctly seen a valley across the Cordillera, and having often accompanied Mr. Parsons, Master in command of H.M.S. *Scorpion*, whilst making his admirable survey of Caledonia Harbour and Port Escoces, I have heard him express his opinion that it was highly probable there was a line of country of low elevation, between Caledonia Bay and the Gulf of San Miguel, which would offer every facility for a ship canal.

I am confident that had Dr. Cullen been in command of the expedition, or had any authority in its guidance, it would have resulted successfully.—I have the honour to be, Sir, your most obedient servant,

WILLIAM M'DERMOTT, M.D.

Surgeon, R.N.,

1, Warwick-terrace, Belgrave-road, August 30, 1856.

Sun, Aug. 30, 1856.

THE CLIMATE OF DARIEN.

WE have been favoured by Dr. M'Dermott with the following statement relative to the climate of Caledonia Bay, and that part of the Isthmus of Darien in its neighbourhood which has been explored by parties from her Majesty's ship *Espiegle*:—

“During our stay in Caledonia Bay in January, February, and March—extending over a period of nearly three months—I had sufficient opportunities of observing the nature of the climate as well as the state of the health of the ship's company. I had also constant intercourse and conversation with the medical officers of the United States' sloop of war *Cyane*, and also of the French war steamer *Chimere*, and her Majesty's surveying schooner *Scorpion*, which were anchored in Caledonia Bay during the same period, and the crews of which amounted to 420 men. A party

of twenty-six persons left the ship on the 24th of January, with Mr Gisborne, and did not return for a period of eleven days, during which time they were exposed considerably in wading rivers and occasionally to the sun, though generally protected by the shade of the foliage. Dr. Edwards, assistant-surgeon, who was in medical charge of the party, states that the weather was fine throughout and generally dry, with the exception of a few light morning and evening showers. Average of thermometer 76 degrecs. Every preeaution was taken for the general preservation of health, and the party was protected at night by sleeping in well-built huts of palm-leaves. The usual doses of quinine wine were administered to each of the party daily. When they returned to the ship, and for some time afterwards, I closely observed the state of their health, and in no case could I detect any symptom of disease caused by their exposure; on the contrary, I think they were improved by the change.

"A second party of twenty-one persons left the ship on the 24th of March and returned upon the 2nd of April, and, although their duties were much more arduous, and the exposure greater, as they had to cut their way through the bush, no case of endemic or local disease resulted therefrom.

"The ground being mountainous and devoid of marsh, and the rivers all running streams, with rocky and sandy beds, having no alluvial deposit, I feel confident the causes of endemic fever do not exist—at all events, during the period of the year I have mentioned; nor do I think, even at any time of the year, that the fever so fatal and injurious to health which prevails at Grey Town and Navy Bay can exist.

"I made frequent inquiries among the natives, and could not ascertain that any particualar form of fever or disease prevailed among them, and, from their appearance, I should say they are a very healthy race.

"The temperature and climate of Caledonia are far superior to those of any part of the West Indies that I have visited. A cool and steady breeze from the N.N.W. prevailed, with scarcely any variation, during our stay there. The heat does not cause that feeling of oppression experienced in the West India Islands, and the nights are delightfully cool.

"Previous to the ships' leaving I made particular inquiries of all the medical officers, and found that no case of disease had occurred which could be attributed to climate.

"Twenty sailors from the French war steamer *Chimère* were employed during the same period, and with the same result. The United States' sloop *Cyane* had also a number of men employed surveying and digging wells, &c., and no endemic disease occurred.

"From the nature of the duties of the crew of the *Scorpion* surveying schooner, the men had been constantly exposed from morning till night daily in the harbour, but not a single case of fever occurred during a period of three months. From the time

of our arrival in Caledonia Bay, it was observed by Dr. Edwards and myself, that the men improved in health, and when we left, the ship's company was in better condition than when we arrived on the coast of Darien."—*Times, Sun, and Morning Post, September 4 & 5, 1856.*

THE ISTHMUS OF DARIEN.

THE following report, by Dr. Ross, of the expedition across the Isthmus of Darien, from H.M.S. *Virago*, has been obtained by Dr. Cullen from the Medical Department of the Navy, and has not hitherto been published :—

December 18, 1853, 1 p.m.—Left the ship in medical charge of the expedition sent to explore the Isthmus of Darien, and report on the practicability of the projected ship canal from the junction of the rivers Savana and La Villa, on the Pacific, in a N.N. easterly direction, to Port Escoecs, on the Atlantic side. The following are the names of the officers and crew that accompanied the expedition :—Commander J. C. Prevost; Lieutenants Moore and Gordon; Mr. Inskip, master; assistant-surgeon Dr. Ross; Mr. Hornby, midshipman; Wm. Rawlings, captain of forecabin; R. Whitbread, quartermaster; J. Curtis, J. Fink, H. Windsor, H. Robins, H. Jones, J. Dick, W. Behenna, J. Tower, J. Cullen, and R. Blake, able-bodied seamen; W. Rowe, W. Richards, and J. Callahan, ordinary seamen; J. Hyde, J. Perkins, G. Julier, J. Orrell, W. Barnes, and J. Fisk, privates of the Royal Marine Artillery; with seven New Granadian guides.

January 7, 1854.—Returned to the ship with the exploring party. The following is a brief account of our journey across the Isthmus and back :—Leaving the vessel in Darien harbour we ascended the Savana, a distance of twenty-one miles, in the cutter and first gig, the Granadians occupying two canoes. This river has its source in the Isthmus, from the confluence of a number of small streams, and, after a comparatively straight course of from twenty-five to thirty miles in a S.S.E. direction, empties itself into Darien Harbour, in the Gulf of San Miguel. For the first six or eight miles ascending from its mouth the banks are low, swampy, and covered with mangrove bushes, which extend for some distance inland, until the ground, beginning to rise, terminates on the right bank in a range of hills from 200 to 300 feet high, running nearly parallel to the river. The swampy mangrove on the left bank runs further inland, is more thickly wooded, and finally ends in irregular and solitary hills of from 100 to 200 feet in height. As far up as the distance spoken of, the river, from one and a half mile in width narrows to half a mile, and has a variable depth of one and a half to five fathoms, the deepest water being in mid-channel. This part of its course is nearly direct, and there are no obstructions. A little beyond, however, the stream widens and is studded with numerous little

islands, through which there is a passage with five fathoms water. For the next thirteen miles it becomes more tortuous, narrows considerably, the banks become more solid, the mangrove is lost, and forest trees grow close to the water's edge, it being then only from twenty to thirty yards wide. Its tributaries are the Iglesias and Lara, opening on the left bank, the former near its mouth, and the latter nearly eighteen miles above, and the La Villa on its right bank, about three miles above the Lara. The two first mentioned are large streams, but the latter is small.

At sunset we encamped on the right bank, a little above La Villa, and built a rancho, or hut, of branches of trees, covered over with palm-leaves, for protection from the night dew.

At six a.m. of the 20th, we again resumed our journey in the boats, and about two miles further on, coming to a place a little below tidal influence, with high precipitous banks on each side, the whole party landed, it being the intention to leave a dépôt of provisions and ammunition. The boats were secured, and their contents landed and placed under a canvass tent brought for the purpose. A permanent and comfortable rancho was also built for ten men and an officer, who were to be left here in charge, while the main body prosecuted their researches inland. Every night at sunset we encamped, building our rancho, when the locality was a matter of choice, on a rising as near as possible to a stream. These ranchos were designated by numbers from one to twelve inclusive, commencing with the dépôt.

Dec. 20.—At two p.m., all preparations being made, the party started. It may be here stated that the course taken was, by compass, N.N.E., from which, during the whole journey, no obstruction in the shape of rising ground, stream, or swamp, was allowed to deviate us. Nearly the whole of our route lay through a dense forest of immense trees, the spaces between the trunks of which were filled with undergrowth of creepers of various kinds, chiefly what is termed bushropes, varying in size from half an inch to three inches in circumference, and very tough. Through these it was necessary to cut our way with machetes or cutlasses, and so dense and difficult of penetration is this forest, that four men as pioneers, cutting from eight a.m. till five p.m., could only get over a distance of from three to four miles. The first nineteen miles lay through an undulating country, with frequent elevations and depressions, rendering any correct estimate of their height above the level of the sea difficult. It is supposed, however, that the highest of these did not exceed fifty or sixty feet. In this part of the journey numerous streams, the beds of which were formed of clay, were crossed, running in various directions towards the Pacific, and also two swamps, in one of which the water lay stagnant from two to three feet deep, and extended along our course a distance of at least one mile, and on either side, as far as the eye could penetrate, which here was some distance, the vegetation being scanty.

On the 31st, about noon, we arrived at a river with high banks on each side, about sixty or seventy feet wide, running in a southerly direction, and having on its left bank Indian plainain patches.

This was evidently the Chuquanaqua, which hitherto had been laid down in all the charts as taking its origin much to the southward of where we now were. We here formed our tenth encampment. Next day, January 1, 1854, *a party of the expedition crossed and returned at night with intelligence of having seen the sea—the Atlantic—from the top of a tree on a high hill about five miles distant, the view being in a N.E. direction, and carried through a gorge.* At the same time they brought a very discouraging account as to the nature of the country, which was broken into a series of high hills by deep and intricate ravines, through which numerous and rapid mountain torrents coursed, rendering travelling difficult.

Hitherto our provisions had been carried by five men in large bags and baskets. It being impossible to continue this mode of progression on the left side of the river, it was decided that each officer and man should take four days' provisions, and that the remainder should be left at our rancho on the right bank of the river in charge of a guard of two seamen and two marine artillerymen, who were chosen by lot.

This fell upon Henry Windsor, aged twenty-five, Henry Robins, aged twenty-one (A.B.'s), Thomas Hyde, twenty-two, and James Perkins, thirty-one, R.M.A. On leaving the boats my instruments and pocket-case, with bandages, lint, tourniquet, and medicine had been carried in a tin box. Finding that four days' provisions, arms, ammunition, and blanket were too much to carry under a tropical sun, I took from the box what I considered necessary for immediate use on emergency, and left the remainder with the guard.

On the morning of the 2d January we forded the river, which was then only from one to three feet deep, but which in the rainy season, from evidences around our encampment, must overflow its banks and be then thirty feet deep. Still keeping the same course, we progressed towards the Atlantic. By the evening of the 3d, after crossing several mountains, varying from 300 to 400 feet high, and travelling some distance in the bed of a river from two to three feet deep, and whose course lay in our route, we arrived at an elevation of 1,200 to 1,300 feet; in fact, the summit of the Cordillera range.

From this point of view we overlooked a deep and wide valley, densely wooded and running in an easterly direction. It was supposed that it was through this valley the Atlantic had been seen from the tree. The hills on the northern side of this terminated in a broad and well-defined cliff, beyond which it was surmised was the sea. We had traversed twenty-six and a half miles of measured ground from the place where we had left the boats, three

miles above La Villa, which, allowing three and a half miles for elevations and depressions, would give twenty-three miles in a straight direction, and as none of the maps make the isthmus more, from the latter place, than twenty-three or twenty-four miles wide, we concluded that the ocean was close to this bluff. It was still one day's journey distant, but our provisions getting short it was deemed advisable to retrace our steps, which we commenced doing on the morning of the 4th inst. On our way back we explored, for some distance, a mountain torrent, which we at one time thought emptied itself into the Atlantic, but its course and direction soon led us to believe it was the commencement of the Chuquanaqua.

A little before noon of the 5th we arrived at encampment No. 10, and found the guard gone and the rancho cleared of its contents. Presuming that the men had gone on to No. 9, to avoid the annoyance of sandflies, or that they had been ordered to return by the Indians, who, from the vicinity of plantations, we knew could not be far distant, although we had as yet seen none of them, we prepared, with some degree of caution, to follow them. Between Nos. 10 and 9 we found a heap of bread lying in the middle of the path, but the latter rancho was, also, uninhabited, although it had, apparently, remained undisturbed. On arriving at the edge of the swamp before spoken of as being covered with stagnant water, we observed numerous and recently traced footprints returning to the Chuquanaqua. These, from certain indications, the Granadians pronounced to be from Indian feet. About a mile from No. 8, and on the western side of the swamp, we suddenly came on the murdered remains of three of our former comrades, lying obliquely across the road, and pierced with several gunshot wounds, which must have caused almost instantaneous death. They had evidently, in their retreat, with heavy burdens of provisions on their backs, which still remained there, been shot from the left side of the path from behind an immense guipo tree, the spaces between whose spreading roots could have concealed from view a number of men. All three were lying on their right sides. Windsor was shot through the pelvis and lower part of the spine, Lyde through the left side of the head, and Perkins through the head and throat. Everything left behind us, except provisions, had been taken by the murderers. From the state of decomposition in which the bodies were, I judged they must have been dead forty-eight hours. Nothing could be seen of the remaining man Robins, and it is presumed he was either shot with the others, had escaped farther into the bush, where he died, or was detached by the savages, or else that he is retained to live a miserable prisoner in their hands. Fearing we might now be surrounded by the savages, and every moment expecting a volley from hidden enemies, we could not remain to afford Christian burial to our lamented comrades, however anxious to do so, and we continued our journey till dark, passing ranchos Nos. 8, 7, and

6, and sleeping at No. 5. By daybreak next morning, 6th January, we again commenced our journey, and at eleven a.m. arrived at No. 1, where we found the party we left behind all well. At ten p.m., the tide serving, we started for the ship, and arrived on board early this morning, January 7.

Intermittent fever is endemic amongst the negroes and New Granadians inhabiting the villages* in and around Darien Harbour, so that it was fully expected that some of us would, ere now, have suffered from this complaint. The incubative period of the disease may not yet be over, but, as yet, no one has suffered from the journey. All were exposed to more than ordinary exertion and consequent fatigue in carrying heavy burthens and assisting to clear the dense brushwood, so as to make a recognisable path for our return, and also for others to traverse after us, should this portion of the Isthmus be subjected to a regular survey. At the same time we were but scantily fed, chiefly on salt provisions, while at night we had to sleep in open ranchos, exposed to the night air, with frequently the lower parts of the body wet from the numerous streams we had to cross. It had been asserted that this portion of the Isthmus was very insalubrious, but from the foregoing facts, and from our being exposed to malarious influence in crossing the marshes before mentioned, it may reasonably be concluded that, at this season of the year, when the evaporation from decaying vegetable matter, following the rainy season, has ceased, and dry weather fairly set in, this portion of the Isthmus is healthy to Europeans. At the same time, our not having suffered from fever is greatly to be attributed to our not having been exposed to the rays of the sun (the foliage of the trees having afforded us a grateful shade), and to the comparative coolness of the atmosphere, which, judging from the feelings, was never above eighty degrees Fahrenheit, and then rendered refreshing by a constant northerly breeze; but mainly to the dryness of the ground over which we passed, and its freedom, except in two places, from marsh or swamp.—*Sun, September 12; Morning Post, September 13, 1856.*

[*The Italics are mine, E. C.*]

THE EXPEDITION IN SEARCH OF STRAIN'S PARTY. COMMUNICATED BY DR. M'DERMOTT, R.N.

Dr. Ross's *Journal*. March 17th, 1854.

Left the ship† at 1 p.m. in medical charge of an expedition detached to ascend the river Chuquanaqua: the following are the names of the individuals engaged in this service:—Mr. W. C.

* Only at Chapigana, which is built on a swamp.—E. C.

† H. M. S. Virago.

Forsyth, senior lieutenant; Mr. Henry Hills, acting paymaster (volunteer); Dr. William Ross, assistant surgeon; Mr. G. Parsons, gunner; William Polling, captain of the forecastle; William Ashcroft, William Jeffery, William Dunsford, Thomas Aikenhead, William Chandler, William Hockey, Robert Blake, William Behenna, Richard Kingswell, John Walsh, John Tower and Gallagher, able seamen, with George Julier, Thomas Orrall, R.M.A.

The object of this expedition is to search for a missing party of twenty-seven officers and men who left the U. S. ship *Cyane*, in Port Escoces, Caledonia Bay, Atlantic, on the 19th January last, with the intention of exploring the Isthmus in a S. westerly direction to Darien harbour. They have not since been heard of, but are said to have been traced to the left bank of the Chuquanaqua by Indians, who carried the intelligence to Port Escoces. It is presumed that, mistaking this river for the Savana, they are now wandering on its banks in a state of starvation, as it is known they only took eight days' provisions with them; or that they have been destroyed by the same hostile Indians who waylaid and murdered our own men. The former supposition is borne out with some degree of probability by the fact, that the course of the latter river is only twenty miles from the former, where it is a considerable stream; and near which, coming from the Atlantic, it is likely they would strike it; and that the Chuquanaqua, after a very winding course along the centre of the Isthmus, it is said of above a hundred and fifty miles, terminates in the Tuyra, which empties itself into Darien harbour, within a mile of the mouth of the Savana. As remarked on the 7th January, in the description of this river, it opens into Darien harbour after nearly a straight course of between twenty-five and thirty miles. The latter supposition is not probable, as the party was well armed, and not likely, from what is known of Indian character, to have been faced by treble their number of perfectly armed savages. The American exploring party had for its object the examination of the Isthmus, and reporting to Government as to the possibility of cutting a Ship Canal from sea to sea. The searching expedition returned at 1 a.m. of the 30th March, after the absence of a fortnight. The following is an account of our proceedings, taken from a daily journal kept by me:—

“We left the ship at anchor in Darien harbour, and embarking in one of the paddlebox-boats, we took advantage of the flood tide, and ascended the river Tuyra, a distance of about twenty miles, anchoring, when the ebb commenced, at 8 a.m. By noon the tide turned, and again getting under weigh, we arrived at the village of Yavisa at 9 p.m.; this place is forty-five miles from Darien harbour, and is spoken of as the capital of the Isthmus of Darien; it is simply a collection of bamboo houses or huts covered with palm-leaves irregularly arranged, or rather strewn, about a level piece of ground on the right bank of the river. Its popula-

tion consists of 250 to 300 mulattoes, whose language is broken Spanish, and who are presided over by an official termed Jefe Politico, appointed by the New Granadian Government, which claims jurisdiction over this part of the American continent. These people obtain a miserable livelihood, partly by hunting and cultivating maize and plantains; in winter they saw up trees, the growth of the neighbouring forest, which they transport to Panama in large canoes in the shape of planks, and there dispose of them for spirits, clothing, &c. At its mouth, the Tuyra is about one and a half to two miles wide, but at Chapigana, a village on its left bank, eight miles up, it narrows to less than one mile, and gradually contracting at Yavisa, it is only forty yards wide; it has a depth of from three to four fathoms, which it carries a little above Chapigana; becoming shallower at the place where we anchored, it expands into a wide bay, in which are numerous sand and mud banks, rendering navigation rather difficult, except at high or low water, the former carrying you over all these impediments and the latter rendering them visible. The deepest part here is close to the right bank. The mangrove is not so abundant on this river as on the Savana. It is more common for a distance of seven or eight miles above Chapigana than below it. This river extends itself inland on both sides into several creeks, which, in one or two places, spread out and have the appearance of lakes. The only tributary of any consequence is the Molincea, which joins it on its left bank about midway between Chapigana and Yavisa. The water here is perfectly fresh and of a delicious, sweet, and pleasant flavour.

"The Tuyra has a very varied course: ascending from Darien harbour to Chapigana, it is easterly; it then goes for eight miles nearly due south, and suddenly bends, for a short distance, at right angles to the eastward; it now takes a south-easterly direction for about five or six miles; for the ten succeeding miles it goes nearly north; and finally bending and turning on itself for almost six miles, it arrives at Yavisa. Opposite this village is the junction of the Chuquanaqua and Yavisa rivers. At Yavisa we obtained six canoes and eleven natives to assist in navigating them, and at 10 a.m. of the 18th, we started in the canoes, being taken in tow by the paddlebox boat; assisted by the flood, we rapidly ascended the Chuquanaqua, anchoring at sunset in mid channel, and spending the night in the boat. We here had a narrow escape from destruction, for about midnight an immense forest tree, growing close to the water's edge, and whose roots had been denuded, by the current, of the surrounding earth, became loosened and fell with a tremendous crash into the water, just clearing by a foot or two our boat, and in its fall cutting off the stern of one of our canoes, which fortunately had been moored alongside, but being larger than the boat, projected beyond its stern. This was a salutary caution, and in future, when selecting our bivouac on shore, we did not neglect to ex-

amine as to the stability of the adjacent trees. At six on the morning of the 19th we again commenced our journey, anchoring at noon close to the first rapids, which are distant above Yavisa about eighteen miles. From the latter place to these the river carries a pretty uniform depth of three fathoms, average seventy feet wide, and has nearly a direct course stretching towards the N.N.W. It now became necessary to take to the canoes, not so much from the general shallowness of the water, as from the commencement of the rapids and the numerous snags and trees which obstructed our passage. The boat we left at 2 p.m. of the 19th, the following individuals remaining in charge, with directions to await our return; viz., Mr. Parsons, gunner, Jeffery, Dunsford, Aikinhead, Hockin, Walsh and Gallagher, seamen; and accompanied by the blacks, we commenced the second part of our journey. After much labour and difficulty, we were only able to accomplish a distance of about three miles before sunset, owing to the rapidity of the current. We moored the canoes to branches of trees, and, landing, prepared our evening meal, retiring to rest on a dry and elevated mud-bank, without any protection from the night dew, a blanket excepted. The remainder of our journey up may be briefly condensed by stating that, during the next four days, we ascended the river a distance of sixty-seven miles—that it had a most tortuous course, with reaches approaching almost every point in the compass, but, in the mean, taking a N.N. westerly direction—that its banks were wooded by forest trees and beautiful flowering plants close to the water's edge, among which were conspicuous palm, mahogany, caoutchouc, and cedar trees, with convolvulus in abundance—that it had in general high banks, bearing evidence of having been recently subjected to the torrent of the river in a very swollen condition; and that it received numerous and considerable tributaries, the most important of which, rising in the Cordilleras, opened from its left bank.

“In this period we were all exposed to the most fatiguing exertions, in paddling the canoes in deep water, pulling them over shallows, and dragging them over trees; besides, in one or two instances, where fallen trees stretched from bank to bank, digging a canal around their roots. Meanwhile, we were by day exposed to the intense heat of a vertical sun, and, at night, to heavy dews and rain, which completely saturated our blankets, and added to the annoyance of millions of the most voracious mosquitoes I ever met with. This river abounds in alligators; but, except in particular localities, fish are rare. The upper part of the Chuquanaqua and its tributaries are inhabited, during the dry season, by the Indians, who come from the more interior parts of the country to fish on its banks. We also observed numerous evidences, along the banks, of their having lately visited these places, in deserted ranchos, and frameworks for drying fish. These savages are a warlike race, well armed, and

have never yet been conquered, either by the old Spaniards, or their descendants, although their territory is nominally under the sway of the Granadians. To the Spaniards, as well as the blacks, they have an inveterate hatred, from remembrance of former wrongs. They are said invariably to kill the latter when found within their territory; this was lately carried out in the case of five unfortunate negroes who not long ago strayed too far into the wood; they were seized by the Indians, killed, and, some say, eaten. An ancient law exists among them denouncing death upon all white men found without permission in their dominions; this was but too rigorously enforced in the case of our own men. At 5 p.m. of the 23rd we were rejoiced by the ery of smoke being seen a-head; several muskets were fired, and a cheer given; these were answered, the latter but faintly, from the right bank of the river, a little in advance. Presently several people were seen emerging from the woods, and crawling down the steep bank. They proved to be of the lost party, and a more wretched set of human beings were never beheld; so emaciated were they, that, clothed in their rags, they appeared like spectres; some had retained their arms and blankets, while others, scarcely able to drag along their own bodies, had thrown theirs away. Our first surmise attributing to them their having mistaken the Chuquanaqua for the Savana proved to be but too well founded. They had left the Cyane, twenty-seven in number, on the 19th January, with eight days' provisions; these were partly destroyed by their having been upset in the surf in landing. They ascended the Caledonia river for some distance, in search of a gap in the Cordilleras, said to exist in that neighbourhood, but failing to find out this, crossed the summit of the range at a supposed elevation of 1,300 feet. On the third day out, two officers and three men strayed from the party and lost themselves; they were, however, fortunate enough to reach the ship in safety. This intelligence we received before leaving Panama. The main body, under Lient. Strain, continued its course to the Pacific, being guided by natives engaged from Port Esceoes for the purpose, down a stream on which was an Indian village in flames,* to the Chuquanaqua, which they were informed was the Savana. They struck the river on the 28th of January, and when they had finished the last of their provisions. Knowing that the Savana gained the sea after a course of twenty-five miles, and calculating to arrive at Darien harbour at furthest in three or four days, during which they imagined they could find sufficient sustenance on its banks, they determined on prosecuting their journey, although now deserted by their guides. They continued following the river, which they crossed, suffering much from want of food and lacerated feet, until the 13th February, when the marches became so short, owing to the debilitated state of the greater number, that

* Sucubti.

it was resolved to send a party in advance to obtain assistance. Accordingly on this day Lieut. Strain, and three others of the strongest, detached themselves from the party, and after suffering great hardships, sometimes travelling along the banks, and at other times progressing by means of rafts, which they formed, and which in succession were destroyed by rapids and snags, they arrived at Yavisa on the 9th of March, in nearly a perishing condition.

"Almost naked, and with their bodies lacerated in a shocking manner from the brushwood, &c., they there engaged several canoes, and dispatched them to the aid of their comrades, with provisions, and the other necessities of which their companions were in want. On the 17th, this relief party returned to Yavisa, having ascended the river a distance of sixty miles. Having reached a point on the left bank where they found a newly made grave, and a letter addressed to Mr. Strain, they returned on their way down. A little below this, they picked up one man who had strayed from the main body; he, however, could give but little account of himself, as he soon became delirious, and died. The letter was from the officer left in command, dated the 6th March, and to the effect that they had followed the river thus far, where one man had died of starvation; that seeing no probability of a near approach to the sea, and despairing of aid from below, they had determined to make a retrograde movement, and attempt to regain their ship. On receiving this, Mr. Strain attempted to persuade the people to return in the canoes and follow them, at the same time offering to accompany them, but they declined, from dread of the Indians. Failing of this, and hearing of the Virago having arrived at Darien harbour, he immediately started thence to ask assistance. We fortunately met him eighteen miles below Yavisa, and he returned with us. The main body we came up with, as they had halted for the night. In addition to the two deaths already noticed, they had lost one seaman and two New Granadian commissioners, who had died of starvation. It was evident to us that in not many days nearly all would have died from the same cause. From the 27th February to the 23rd March they had existed chiefly on several species of palm nuts: one of these, when roasted, was rather sweet and palatable; another so intensely acid as to have completely divested their teeth of enamel. Of these they eat immense quantities; but they afforded little nourishment: they were excessively astringent in their nature, and caused long-continued constipation, lasting, in one instance, twenty-two days. In nearly all, the intellect was in a slight degree affected, as evinced by childish and silly remarks, although their memory, and the recollection of their sufferings, were unimpaired. Individually, they had given themselves up for lost; and their excessive joy at being unexpectedly snatched from death was, in some measure, sufficient to account for this. Bodily, they had all suffered severely. All, on leaving

the ship, had been stout, healthy men: now they were literally living skeletons, covered with foul ulcers and phlegmons. From retracing their former route, in which they had cut down nearly all the palm-trees affording nuts, these were getting scarce; and as game is hardly seen on the banks of this river, it is more than probable that a few days would have finished the whole of the party. They were of course ravenous for food, and it is singular that their first request should have been for sugar and tobacco. They being handed over to my care, I gave directions that nothing should be given to them except what I ordered myself. I had prepared for them some weak soup and bouilli, with rice, giving them each, meanwhile, a small quantity of port wine and water. On the morning of the 24th, notwithstanding they had partaken of such nourishment as they had not even heard of for fifty-seven days, many of them could not move, and had to be carried into the canoes. They had discovered their own weakness, in feeling now that all necessity for exertion on their part was ended. In our journey down the river we numbered thirty-seven—quite as many as the canoes could with safety hold. The same nourishment as given on the 23rd was repeated frequently, and in small quantities. On the 26th we arrived at the boat. Here one of the party, owing to the mistaken kindness of those about him, had an epileptic fit, evidently brought on by over-repletion. On the evening of the 27th, we arrived at Yavisa, where, I regret to say, one of the party died: he was in the last stage of debility, and, during the journey down, had only been kept alive by stimulants. On the 30th we arrived on board. Part of the Americans are located on shore, at a neighbouring village called La Palma. They are rationed from the ship, and have whatever else they require from our mess, and are visited daily by myself or Dr. Travan. All are still in a very debilitated state, but, with one exception, are recovering. This individual is a civil engineer attached to the party.

“Regarding the effects produced on our own men during this expedition, I have only to remark, that, as yet, none of them have complained. Quinine was every morning issued to them, as a preventive to fever. Purgative medicine had once or twice to be given for constipation, from the quantity of vegetable matter contained in the river, of the water of which we drank abundantly: quite the reverse state of the bowels might have been expected. During our absence, a series of levels have been carried across the Isthmus, along our route from the Savana to the Chuquanaqua, the right bank of the latter being found to be one hundred and twenty (120) feet, and the bed of the river ninety-seven (97) feet above the level of the sea.”—*Morning Papers*, 23 and 24 Sept.; *Sun*, Sept. 23.

LIEUT. STRAIN'S LETTER OF THANKS TO COMMANDER MARSHALL.

COMMANDER MARSHALL presents his compliments to Dr. Cullen, and begs to send a copy of Lieut. Strain's letter of thanks to himself and crew, while he commanded H. M. S. *Virago*. Commander Marshall begs to acknowledge the receipt of the pamphlet. *H. M. S. Devastation, Sheerness, September 16th, 1856.*

United States' Darien Expedition.

Cantonment of La Palma,

Darien Harbour, April , 1854.

Sir,—In my own behalf, and that of the officers and others composing the Expedition under my command, I write to tender to you and, through you, to the officers and seamen under your command, our sincere thanks for the prompt and inestimable assistance rendered by the party dispatched to the Upper Chuquanaqua under the immediate command of Lieut. W. C. Forsyth.

To the energy and activity of the Commander of the Relief Party, Lieut. W. C. Forsyth, we owe many thanks, as the condition of some members of our Expedition was so precarious, that even a few hours afterwards we should have been too late. To him, to Dr. William Ross, and to the Paymaster, W. H. Hills, and the men composing the crew of the paddlebox boat, you will be pleased to convey my thanks, and those of my party, and I am well aware it must be a source of intense satisfaction to them to know that, had it not been for their well-directed efforts, twelve suffering men must inevitably have perished miserably, notwithstanding every effort which I, or the others composing the Advanced Guard, might have made to save them.

Very respectfully,

Your obedient servant,

I. G. STRAIN,

Lieut. commanding United States'
Darien Expedition.

To Commander EDWARD MARSHALL, Royal Navy,
commanding H. B. M. ship "*Virago*."

Daily Papers of 24 and 25 Sept.

THE ESPIEGLE AND SCORPION, ON THE DARIEN EXPEDITION.

TO THE EDITOR OF THE TIMES.

DR. CULLEN begs to present his respects to the Editor of *The Times*, and to request his insertion of the following extracts from the masters' logs of Her Majesty's ships *Espiegle* and

Scorpion, while engaged on the Darien Expedition, which were kindly placed at his disposal at Somerset-house. These extracts contain all in those logs that relates to the expedition.

11, Royal Exchange, Sept. 12.

“MASTER’S LOG OF HER MAJESTY’S SHIP ESPIEGLE,
No. 62, 1048, W. MAYES, MASTER.

“PORT ROYAL.

“Sunday, Jan. 15, 1854.—1 p.m., Mr. Gisborne, Dr. Cullen, and Lieutenant St. John, R.E., and a party of men for the Darien Expedition came on board.

“18th.—8 a.m., slipped from the buoy; proceeded by the east channel to sea; left in Port Royal Her Majesty’s ships Cumberland, Inaam, Devastation, and French steamer of war Chimère. 9.30 a.m., ship drifting towards shore; let go small bower in 13 fathoms. 11 a.m., French steamer of war proceeding out; weighed, and was taken in tow by her. Noon, in tow of Chimère.

“19th.—9.40 a.m., ship in a heavy lee lurch; filled gig, and unhooked her forward; washed overboard G. Williams, B.M. 11.50 a.m., picked up man, lost life-buoy.

“21st.—7 a.m., trimmed; set starboard foretopmast and topgallant studding sails. 8 a.m., lat. D.R. 9, 14 N., long., chr. 77.32 W. 9 a.m., Oro Island, S.S.W. $\frac{1}{2}$ W., 18 miles. 11.15 a.m., up courses, wore and hove to; sent whaler into Caledonia Bay to ascertain position of shoals. 1 p.m., bore up and stood in. 3 p.m., shortened sail in centre of Sasardi Channel; came to with S.B. in 10 fathoms, veered to 46 fathoms; furled sails. Piedras I., E $\frac{1}{2}$ S., Point San Fulgencio West. Found here the American corvette Cyane.

“SASARDI CHANNEL.

“22d.—9.30 a.m., observed French war steamer Chimère to S.E. Her Majesty’s ship Scorpion made her number. Fired three signal guns, and hoisted French ensign to warn Chimère of danger. 10.50 a.m., Chimère anchored. 11 a.m., fired a gun to enforce signal to Scorpion. Sent boat out to mark channel. 1 p.m., Her Majesty’s ship Scorpion anchored.

“23d.—Sunset, up boats. Mustered landing party, fully accoutred.

“24th.—Landed Lieutenant St. John, R.E., Dr. Cullen, Mr. Gisborne and party, Lieutenant Preston, Dr. Edwards (Assistant-Surgeon), Mr. Edwards (Mate), and a party of 10 men, to cross the Isthmus of Darien.

27th.—8.30 a.m., arrived an English boat from Navy Bay, with despatches from Her Majesty’s Consul at Navy Bay. Noon, a party of four men returned to the ship from the Darien Expedition, with despatches. 3 p.m., arrived a New Granadian schooner

with troops. 4 p.m., supplied schooner with water. 7 p.m., observed a blue light burning and muskets firing to the S.E. at the huts; answered with a blue light and a rocket; sent whaler to the huts. 9 p.m., whaler returned without seeing any party.

"28th.—6.30 a.m., sent a party of 12 men to proceed to the Darien Expedition with provisions. 7 a.m., sailed the New Granadian schooner for Navy Bay. 8 a.m., Mr. Gisborne returned with one man. 8.15 a.m., recalled New Granadian schooner, per signal to Scorpion, 'Stop stranger immediately,' enforced with a gun.

"29th.—9 a.m., Indians came on board. Commander held a conference with them.

"30th.—8 a.m., landed 15 days' provisions for 27 men, and sent them to the Darien Expedition by 20 load-bearers from the New Granadian schooner. 2.45 p.m., Lieutenant St. John, R.E., returned to the ship.

"31st.—Noon, sailed schooner. 12.30, p.m., Mr. Edwards, mate, three seamen, and one marine returned to ship from encampment.

"Feb. 1.—7 a.m., landed Mr. Annesley, mate, three seamen, and one marine to proceed to encampment.

"4th.—10.30 a.m., observed the exploring party returning. Sent pinnace and cutter for them. 12.15, whole of the party of the Darien Expedition returned to the ship.

"5th.—8 a.m., Indians came on board. Commander held a conference with them.

"6th.—Inspected arms at quarters. Indians came on board. Commander held a conference with them. Exercised watch at quarters.

"7th.—6 a.m., Mr. Gisborne, Lieutenant St. John, R.E., and two men of their party left the ship with guides to cross the Isthmus of Darien.

"8th.—5.50 a.m., sailed the *Chimère*.

"9th.—9.30 a.m., landed smallarms men and marines for exercise. E. Johnson, gunner.

"11th.—4.30 p.m., arrived New Granadian schooner from Navy Bay.

"13th.—9 a.m., received by Cyane's launch 900 gallons of water. 4, received by Cyane's launch 900 gallons of water. 4.15 p.m., observed a steamer steering for harbour. 4.45, Her Majesty's ship *Devastation* made her number. 5.20, *Devastation* anchored.

"15th.—4.30 p.m., received from Cyane's launch 400 gallons of water.

"17th.—8 a.m., arrived *Chimère*. Received 400 gallons of water by Cyane's launch.

"19th.—1.40 p.m., sailed New Granadian schooner *Bolivar*.

"21st.—11 a.m., sailed Her Majesty's sloop *Devastation*.

"22d.—Noon, saluted American flag with 21 guns, in honour

of the anniversary of the birth of Washington. Bar. 30.16, ther. 80.

"24th.—6 a.m., discharged Dr. Cullen to Her Majesty's ship Scorpion; landed Mr. Grant, second master, to remain in charge of meteorological instruments. 6.45 a.m., weighed, made all plain sail, and proceeded out of harbour. Left there the Scorpion, Chimère, and Cyane.

"25th.—Noon, lat. 9.30, long. 76.45. Boca Chica, Carthagera, N. 52° E., 82 miles.

26th.—5.50 p.m., came to in harbour of Carthagera, with small bower in seven fathoms.

"March 1st.—11.30 a.m., weighed and made all plain sail out of the harbour of Carthagera.

"2d.—10.50 a.m., shortened sail in the entrance of Sazardi Channel; came to with S.B. in nine fathoms; veered to 30 fathoms.

"SASARDI CHANNEL.

"5th.—7 a.m., sailed New Granadian schooner Nicolassa.

"10th.—Party on shore digging a well. Number on sick-list, three.

"16th.—11.30 a.m., arrived Nicolassa. Number on sick-list, two. 5.45 p.m., sailed Nicolassa.

"18th.—2.30, sailed Chimère.

"20th.—9.45, Scorpion went out of harbour. 7 p.m., Scorpion anchored.

"21st.—8.30 a.m., Scorpion went out of harbour. 7.30 p.m., Scorpion anchored.

"22d.—Arrived a New Granadian Schooner. Returned on board Mr. Gisborne and engineers.

"23rd.—7 a.m., Scorpion went out of harbour.

"24th.—7.30 a.m., landed Mr. Gisborne, engineers, and party, Mr. Mayes, master, and a party of 12 men, to survey the Isthmus. 4 p.m., sailed schooner for Porto Bello.

"25th.—4 p.m., received 1½ ton of water from the Aglaseniqua River.

"26th.—1.30 p.m., arrived United States' corvette Cyane from Navy Bay.

"27th.—Pinnace watering ship at Aglaseniqua.

"28th.—7.30 p.m., Her Majesty's ship Scorpion anchored.

"29th.—8.30 a.m., Scorpion went out of harbour. 1 p.m., returned Mr. Gisborne, Mr. Mayes, master, and a party of 6 men. 2, arrived the American schooner Liberty from Navy Bay. 5, Scorpion anchored.

"30th.—6 a.m., landed Lieutenant Preston, Dr. Edwards, assistant-surgeon, and a party of 12 men to proceed to encampment with provisions. 9, sailed American schooner.

"31st.—4 a.m., bar. 30.13, ther. 78. 7, sailed the Scorpion. 1.30 p.m., Lieutenant Preston, Dr. Edwards, and party returned on board from encampment. 9.30, sailed the Cyane.

" April 1.—3 p.m., sent Mr. Gisborne and Lieutenant Preston to Sasardi to cross Cordillera in that vicinity. 10.30 p.m., Mr. Gisborne returned on board, the Indians having refused him guides and objected to his crossing.

" 2d.—2 p.m., engineers returned on board.

" 3d.—Cutter with engineers boring.

" 5th.—Indians came on board. 11 a.m., arrived the Chimère, bearing flag of rear-admiral.

" 6th.—5.15, proceeded out of Caledonia Bay.

" 8th.—6.50 p.m., came to in the harbour of Carthage. Found lying here Scorpion, Cyane, French frigate Iphigénie, brigs Oreste and Meleager, steamers Ardent and Acheron.

" 10th.—10.30 p.m., discharged Mr. Gisborne and engineers to Royal Mail steamer Dee.

" MASTER'S LOG OF HER MAJESTY'S SHIP SCORPION,
No. 62, 1218.

" Jan. 22, 1854.—1 p.m., came to with B.B. in 12 fathoms in Caledonia Bay. Found lying here Espiegle, Cyane, and Chimère.

" 24th.—A party on shore cutting wood and clearing ground for observations. Number on sick-list, none.

" 27th.—A party clearing away trees on Observation Island. Number on sick list, none.

" Feb. 23.—2 p.m., sent Dr. Cullen to Her Majesty's ship Espiegle, by order of Commander Hancock, Dr. Cullen leaving under protest against the force used for that purpose.

" 24th.—6 a.m., Her Majesty's ship Espiegle sailed. Received on board Dr. Cullen, per order of senior officer. First cutter and gig away surveying. Number on sick-list, none. Employed painting and cutting wood.

" 25th.—9 a.m., United States' corvette Cyane sailed. Chimère got under weigh, and shifted berth.

" 28th.—9 a.m., arrived a schooner from Cathage.

" March 2d.—11 a.m., arrived Espiegle.

" 16th.—A schooner arrived from Carthage.

" 20th.—8 a.m., stood out of Caledonia Bay.

" 22d.—1 p.m., arrived a schooner from Navy Bay, with Mr. Gisborne.

" 23d.—5.30 p.m., ran through the Sasardi channel. Shortened sail, and came to with stream anchor in three fathoms, off Sasardi village; furled sails. First cutter returned.

31st.—6.30 p.m., discontinued the survey, and made all plain sail for Cathage."—*Times and Sun*, Sept. 16, 1856.

CORRESPONDENCE PREVIOUS TO DR. CULLEN'S
ARREST AND IMPRISONMENT BY COMMANDER
HANCOCK.

*H.M.S. Espiegle, half past one o'clock, Wednesday,
February 22, 1854.*

DEAR CULLEN,—I had all your traps packed up ready for the Scorpion's boat, but the commander sent for me a few minutes ago and asked me if I had not heard from you, and what were your reasons for leaving the ship. I said you merely asked me to send your things by the Scorpion's boat, when he requested me to write you a note and say that it is not the custom of the service, when a person has been borne on the books of a man-of-war, to leave without acquainting the commanding officer, and that he was not aware of having behaved ungentlemanly to you in any way, or treated you badly during your stay on board the *Espiegle*. He requested me, at the same time, not to send any of your things until he sees you: that to me is, of course, an order.

I supposed that you merely went to pay a morning's visit to the Scorpion, as I told the commander you had been invited.

Come in time for dinner at four, as we have a place for you at the table. The Americans are to dine with us. Doyle is going up in the boat, and will tell you what he thinks of the matter.

Believe me, dear Cullen,

Most sincerely yours,

WILLIAM McDERMOTT.

Dr. CULLEN, H.M.S. Scorpion.

[*Copy furnished to Dr. Cullen agreeably to his request.*]

JOHN PARSONS, Aetg. Master Commanding

H. M. Surveying vessel "*Scorpion*."

*H. M. Sloop "Espiegle," Caledonia Harbour,
23rd February, 1854.*

SIR,—It is my direction that if Dr. Cullen is on board H.M.S. "*Scorpion*," that he is (sic) sent on board here in the boat I send with this order.

(Signed)

G. HANCOCK,

Commander and Senior Officer.

To the Master Commanding or the Commanding
Officer H.M.S. "*Scorpion*."

No. 9.—*A bord de la Chimère, Calidonic,
le 23 Fevrier, 1854.*

MONSIEUR,—Je ne connais ici, comme représentant de la compagnie de jonction des deux océans Atlantique et Pacifique, que M. Lionel Gisborne.

Vous ne trouverez donc pas étonnant que je ne donne aucune suite à votre demande, et surtout que je ne vous invite pas à

assister aux délibérations pour lesquelles mes collègues et moi jugerons convenable de nous réunir.

J'ai l'honneur de vous saluer,
Le Capitaine de la Chimère,
J. JAUREIGUIBERRY.

Monsieur le Dr. CULLEN,
à bord du Scorpion.

On Her Majesty's Service.

H.M.S. Espiegle, Caledonia Harbour, Feb. 23rd, 1854.

SIR,—In reply to your letter of this day's date, I beg to inform you that I have never seen any official intimation of your holding the position you now assume as the representative of the Atlantic and Pacific Junction Company.

If you possess any written documents to that effect, it is incumbent upon you to produce them immediately, as you have failed to do so hitherto, in order that I may take such steps as I deem proper.

If you have no such documents, I can only regard you as a member of the Expedition, relative to which I have my full instructions* how to act, and by that authority I desire that you immediately return on board.

I am, Sir, your obedient servant,

G. HANCOCK,

Commander and Senior Officer H.M. Ships and
Vessels of War, Darien Expedition.

To Dr. E. CULLEN, M.D., accompanying Darien
Expedition, Her Maj. Surveying vessel "Scorpion."

Along with the above came an order to Commander Parsons to send me back to the Espiegle "by force of arms" if I refused to go voluntarily, which order Commander Parsons showed me, but was not at liberty to give me a copy of. My protest against this arrest was entered in the Log of the Scorpion for Feb. 23rd, published in the *Times* and *Sun* of 16th instant.—E. C.

Captain Hollins, of the U. S. corvette Cyane, answered on the same day, in a polite letter, which I cannot immediately find, as well as I can recollect its tenor, that my demand for some attempt to be made for the recovery of the missing parties of Strain and Gisborne was perfectly reasonable, and that he had full confidence in my ability to conduct the search for them, but regretted he had no instructions to send men on shore, or to co-operate with the other naval commanders.

* These, which I saw, and in the drawing up of which I was consulted by Admiral Sir G. Seymour, on board H.M.S. Cumberland, in Port Royal Harbour, simply said, with reference to me, "You are to convey Dr. Cullen to the Coast of Darien."

DR. CULLEN'S "INSTRUCTIONS."

ATLANTIC AND PACIFIC JUNCTION COMPANY.

36, *Moorgate Street, City*, 9th December, 1853.

SIR,—The Directors of the Atlantic and Pacific Junction Company have determined to send, on the 17th instant, a surveying expedition to the Isthmus of Darien, under the charge of their engineer, Mr. Lionel Gisborne. It is their wish that you should accompany Mr. Gisborne, and with this view he has been authorised to defray all reasonable expenses incurred by you whilst in this service, giving you a cheque for £140 (one hundred and forty pounds) to meet any outlay you may be obliged to incur previous to leaving London.

In the letter of instructions to Mr. Gisborne, the Board state that you will accompany the expedition for the purpose of rendering him any assistance which he may think you may be able to give, especially with a view to negotiations with the Indians.

Your obedient servant,

WM. J. HAMILTON, pro Chairman.

DR. CULLEN.

The words, "*which he may think you may be able to give*," in the above document, show clearly that I was to do nothing except when called upon by Mr. Gisborne: in fact, I, the discoverer of the route—the only man who knew anything about the country—the projector of the Company, and the person who called into existence the Board of Directors, and caused the Expedition to be sent out, was reduced to the *status* of an assistant to Mr. Gisborne, who was so vain, obstinate, self-sufficient and hostile to me that he wilfully suffered the Expedition to fail, and prejudiced the interests of the Shareholders, sooner than condescend to take from me the least suggestion or hint as to the course he should pursue.

As he, on all occasions on which I volunteered my advice and assistance, either pretended not to hear, or gave me an uncourteous answer, I need not say that he never asked my advice or sought my assistance: I was not allowed, in fact, to have quite so much influence in the management of the Expedition as one of the sailors who accompanied it.

Even the Spanish map, illustrating the Report made by Adjutant Don Manuel Milla de Santa Ella, of his journey across the Isthmus of Darien from the 2d to the 13th of March, 1788, which Col. Codazzi brought from the Archives of Bogota, was so studiously concealed from me, that I only obtained a momentary glance at it over Mr. Gisborne's shoulders. The Report made by Adjutant Milla was found by me, with the aid of T. C. Vincent, Esq., in May, 1852, in the Archives of Santa Fé de Bogotá, after

immense trouble in getting permission to search therein, and great labour in finding it amongst a mass of Spanish documents, which had not been touched for the previous sixty years. Immediately after my return to London, I published a translation of this very interesting and important document in my book, pp. 193—199. I was led to suppose such a document existed, and to institute a search for it, by information which I had received from an Indian, in my earliest explorations in Darien, of an officer having been sent by the King of Spain to Darien, and of his having crossed the Isthmus at the time that my informant, a man of about seventy years of age, was a very young boy. I imagined that there might also be a map, and Mr. Vincent searched for one, but could not find it. Col. Codazzi, coming soon afterwards to Bogota, and being informed of the search I had been making, followed it up, and found the map.

Regarding the clause in the above document, by which I was to assist in the negotiations with the Indians, all the officers of the *Espiegle* can aver that I was sent into the gunroom by the express desire of Commander Hancock and Mr. Gisborne, on the 22d January, the moment it was known that the Indians were approaching; and that a marine with a drawn bayonet was immediately placed at the cabin-door to prevent me from entering or assisting at the conference—a measure which was always repeated in the subsequent conferences. The result of my exclusion was not, however, very flattering to their diplomatic abilities, for the Indians completely outwitted them, and left them in a very perplexing state of doubt as to whether their intentions were friendly or hostile. The substance of the treaty was, that the engineers were allowed three months to explore the country, Hancock engaging that the ships should sail off with them after the lapse of that time—that they should not cut any path or road—and that they should not bring any Spaniards or negroes on shore. This last clause was broken a few days after; Gisborne sending two hundred of Codazzi's soldiers and convicts, all New Granadian negroes, to the encampment on the *Aglatumati*. The Indians indignantly protested against this breach of faith, and assumed a belligerent aspect. Thenceforth their friendship seemed so problematical, that I was in a constant state of alarm, lest they should kill all Gisborne's party at once, or in detail, either of which would have been a matter of very easy accomplishment; so complete was the neglect of every military precaution, and so frequently did he detach small parties. The watch at night was so little attended to, that I used generally to remain awake the greater part of the night, in order to keep the sentries in a state of vigilance. In a very brief space of time the commanders found they were no match in negotiation for the savage Indian Dennis, and were obliged to resort to threats of cannonading, village-burning and hanging, which did not produce the expected effect on this cool and astute Indian, who laughed at their threats,

and, quietly slipping into his canoe, retired to Sasardi, whence he kept a close watch on the ships, for there were always afterwards a couple of canoes in sight, evidently stationed to give intelligence of any movement among the ships, or of the starting of any parties on shore. Dennis, when I visited him afterwards at his hut, and asked him why he did not come to the *Espiegle*, told me it was because he did not like the two big men there. After I left Caledonia Bay, he told Dr. McDermott that there were two big guns (as, with Indian metaphor, he designated Hancock and Gisborne) on board the *Espiegle*, and that he would not go there for fear of meeting them.

I may here incidentally mention that, having had to fly from the persecution I suffered, I was obliged to pay all the expenses of my return to Europe out of my own pocket. The repayment to me of this petty sum has been repudiated by the Directors of the late Company.—E. C.

ENGINEER'S OPINION OF THE PRACTICABILITY OF THE DARIEN CANAL.

Brompton, 15th September, 1856.

DEAR SIR,—I have received and read your letter on the “Darien Ship Canal.”

I am well acquainted with the Atlantic and Pacific *coasts* of the Isthmus of Darien, having been professionally engaged thereon, as well as on the river Atrato, from its mouths in the Gulf of Darien to its headwaters in the province of Choco, New Granada, and the mountain regions on both sides of that river.

My opinion of the practicability of a Ship Canal across the Isthmus is derived only from a general and not a particular knowledge of the elevations existing between the Atlantic and Pacific. Now, I think that San Miguel is the *only* harbour on the Pacific coast at all suited to be the canal port on that side, and that, whatever route be adopted, San Miguel must be the terminus on the Pacific side, as there is no other on that coast suitable. It is a very fine harbour.

On the Atlantic side, without taking into account Port Escoces, the whole Gulf of Darien may be called a harbour, having plenty of water and good anchorage, and being well sheltered from the strong wind from the east prevailing about November.

The appearances of the land (from sea) on both sides of the Isthmus, I think, fairly warrant one in believing that there exists a *valley pass* through the Cordillera. I am of opinion that the land near to the mouths of the Atrato would be found to furnish

a better route than that from Port Escoces ; or, at least, the land between that port and the western mouth of the Atrato.

I am well aware that to express an opinion on the impracticability of the Darien route, when such route has never as yet been subjected to a particular or accurate survey by instruments and competent parties, would be perfect madness. It seems to me to be the only natural route for such an undertaking, and my engineering experience would not lead me to trust to a *mere ramble in the bush* to condemn it.

It must be made a subject of close survey ; the world would not be satisfied with less, and any one acquainted with the dense forests and undergrowth of the Isthmus, where you have to cut every inch of your progress, knows that a survey would be a work of time. I do not sometimes wonder at *hasty opinions* of impracticability from engineers when shut out from the comforts of civilised life, exposed also, it must be confessed, as experience has sadly taught us, to the *Indian's arrow*, and cutting their steps, as they proceed, with much labour.

A light but elongating ladder might be taken along with a surveying party, and raised at times far above the tallest monsters of the forest ; the bearings of the most suitable route would by such means be discovered, and then a *proper survey* could be made.

I fully concur with you as to the healthiness of the Darien coasts from my own experience, which completely bears out the statements of the medical officers of her Majesty's ships.

I should be glad to know that a *proper survey* had been undertaken, and found to be successful. I have a very unfavourable opinion of the proposed Atrato route ; my experience would lead me to think it impracticable from what I know of the district and river.

I am, dear Sir,

Yours faithfully,

WILLIAM BRAY, C.E.

EDWARD CULLEN, Esq., M.D.,

11, Royal Exchange.

Morning Post & Sun, Oct. 2.

PLAN OF OPERATIONS SUGGESTED BY S. B.
ROGERS, ESQ., OF NANT Y GLO.

Nant y Glo, near Newport, Monmouthshire.
September 24th, 1856.

DEAR SIR,—I have gone over your Report, and the following points have more immediately arrested my attention, as to the want of unity of action of the parties deputed to make so im-

portant a survey, and the failure of finding a practicable route or direction for a ship canal across the Isthmus.

In page 1 you state, that "instead of a single well arranged expedition, there were three unconnected explorations." Hence, from the commencement, nothing but discord may have been anticipated. This should form a beacon to instruct others to avoid disunion in all future attempts of the kind.

I was not aware of the existence of an "Atlantic and Pacific Junction Company of London." The acting parties of such Company made a sad blunder in appointing their engineer to command the expedition to Darien, in preference to one who had made a personal inspection of much of the country in question; but, in general, competent men are put aside for others who have the tact or effrontery to write "engineer" after their name without due qualification.

In page 2, I find the American engineer (Strain) was a good sample of the go-a-heads, and a very polite one also.

In page 3, it appears that on the 26th January, Colonel Codazzi and Mr. Gisborne crossed a hill to the Chueti, a river on the Pacific side of the Cordillera: here half the business would appear to have been accomplished; but on the following morning the Granadian colonel contrived, in the face of the glaring fact that you had passed the watershed between the two oceans, to lead them back to the Atlantic side of the hill in question. Where was the science of the engineer-in-chief? If he had been without a compass, surely the sun in the heavens would have been a sufficient guide to him to have put a negative upon the colonel's accident or design to frustrate or stultify the affair.

On the 3rd February you evidently ascended the culminating point of land between the two oceans: you do not give the elevation; * but in page 10 it is stated that a hill 120 feet high†

* The elevation the party reached on the mountain Agla, which forms the watershed between the Aglaseniqua and the Sueubti, was 600 feet.

† This is the hill, about five miles on the Atlantic side of the Chuquanaqua, stated by Commander Prevost, of H.M.S. Virago, to be 120 feet high, from the top of a tree on the summit of which his native guide, Maria, saw the Atlantic, as stated in Prevost's official report, published in the Royal Geographical Society's journal for last year, and in letters from Captain Kennish and Mr. Robert Nelson, C.E. ("volunteers" from the New York Atrato Canal Company, who accompanied Prevost), published in the *Echo*, *Herald*, *Star*, *El Panameno*, *La Estrella*, and *La Cronica* of Panama, and the *New York Herald* and *Tribune*, in February and March, 1854. The following passages from the report of Dr. Ross, who had medical charge of Prevost's expedition, published in the *Sun* and *Morning Post* of the 12th and 13th September, 1856, refer to the same hill, and the valley which traverses the Cordillera in a direction from the Atlantic to the Pacific, the existence of which I reported six years ago, but the scientific explorers on the late expedition, not having sought for, and perhaps not having desired to find it, reported, very logically, that it did not exist, and that my statements as to the existence of a valley across the Cordillera were false.

"Next day, Jan. 1, 1854, a party of the expedition crossed (the Chuquanaqua) and returned at night with intelligence of having seen the sea—the

intervenes between the Chuquanaqua and the Atlantic. In a recent gazetteer I find it stated that, to form a ship canal across the Isthmus in question, it would be necessary to cut through a hill about 120 feet high.

This impediment would be easily surmounted. In my estimate I have allowed the existence of a hilly impediment upwards of 300 feet in height, so that one of 120 feet would be of no particular importance.

Colonel Codazzi must evidently have acted from design, and his getting into a rage with you for calling his judgment in question was a clear proof to my mind that he had not a single reason to help him out of the dilemma, when accused of retrograding *north* instead of proceeding towards the *south*.

Where was the London Company's engineer? Echo gave no answer. It appears that, even in the dense woods of Darien, if we meet with a knave, we shall be sure to find dupes. The "Expedition" was a complete farce. What had the colonel to say for himself when he found his dupes discovered themselves within only two miles of the Atlantic?

In page 5, Mr. Gisborne and party appear to have crossed the Isthmus in three days, after passing the only portion of the country presenting engineering difficulties.

As the business appears to have been abandoned by the London Company, probably their engineer represented the affair as an impossibility!! You do not mention the elevation of the highest ground traversed by Gisborne's party: probably both Gisborne and the Company husband that point as a sort of family secret, and therefore I can form no judgment as to the impossibility in question; but a hill 120 or even 420 feet high, would form no insurmountable impediment to the cutting through the Isthmus referred to, even down to thirty feet below low-water mark of either of the oceans.

From the whole of the explorations, it is quite evident that a practicable route for a ship canal from the Atlantic to the Pacific may be found, were a *proper* exploring party engaged for the purpose—a party, however, that should be led by a person who may have had a knowledge of the country (say yourself), and, taking a compass course bearing S.W., should follow it as near as possible from one ocean to the other, planting dépôts of men and materials at intervals of about one mile along the entire route.

The "results" clearly show—

1. That there was no unity throughout the entire affair.
2. That good and commodious harbours exist for termini to a grand ship canal.

Atlantic—from the top of a tree on a high hill about five miles distant, the view being in a N.E. direction and carried through a gorgo."

"From this point of view we overlooked a deep and wide valley, densely wooded, and running in an easterly direction. It was supposed that it was through this valley the Atlantic had been seen from the tree."

3. That the highest hill to be cut through has an elevation of only 120 feet.

4. That the climate is healthy, and no hostility need be apprehended from the Indians, the proper and natural owners of the soil.

5. That a distance of only four or five miles is all that separates the *known* parts of the Isthmus from the *unknown*.

From a candid review of the whole "report," I can come to no other conclusion than that the Atlantic and Pacific Junction Company of London stultified the whole business of their exploring party, by placing you in subordination to their engineer—a person who did not appear to have known the radical points of the compass, or he would not have travelled *south* one day, and *north* on the next, at the instigation of another titled "bushranger" (Col. Codazzi), who, I firmly believe, knew the right road well enough; but, either from *instructions* or *private views**, by accident led "the innocents" up the hill to-day and down again to-morrow.

* It is due to the acumen and keen discernment of Mr. Rogers to state that Colonel Codazzi *had* private views, antagonistic to his duty to the Government of New Granada and to the project of a canal in Darien, he having just concluded his survey of the Atrato route, which he reported most favourably of to a New York Company, who proposed cutting a canal by the Atrato and Napipi, the route for which a company was originally formed by the indefatigable but hardly used Mr. Haldon, of Lime-street. The gallant colonel, I learned, had some right to the *tierras baldias*, or waste lands, on the banks of the Napipi, in partnership with a son-in-law of the late General Daniel Florence O'Leary, British Chargé d'Affaires at Bogotá: these lands, now producing nothing, and covered with a dense forest, would, in the event of a canal being cut there, become of immense value. This circumstance sufficiently explains not only the hostility of Codazzi to me in Darien, but also the opposition I received from General O'Leary (although I brought a letter from Lord Palmerston, desiring him to give me his countenance and support) at Santa Fé de Bogotá in 1852, when I applied to the Government of New Granada for the concession of the canal territory, of which I am the *denunciador*, or original claimant, by Granadian law; an opposition formidable both from his position as British minister and from the deservedly high consideration in which he was held as a companion-in-arms of Simon Bolivar, in the war of South American independence, as a distinguished commander on the fields of Carabobo, Boyaca, Ayacucho, and Junin, and the last surviving general, except General Devereux, of the Irish Legion, which went out to the Orinoco and Apure, in 1817, to assist the "patriots" of Venezuela. When I called at Santa Martha in 1851, on my way to Darien, the Consul, Captain Bentinck W. Doyle, nephew of the late Sir John Milley Doyle, showed me a letter from General O'Leary, in which he desired him to advise me against wasting my time and money in a journey to Bogotá, as, he said, the Government was determined to make no concession either of lands in Darien, or of a right to cut a canal there. However, soon after my arrival in Bogotá, the general, seeing that I would surmount all obstacles, and that both Senate and Representatives were willing to grant me the concession, ceased to oppose, treated me with the greatest hospitality, and invited Mr. Vincent (who is now in London) and me to a magnificent banquet, at which we met the whole *corps diplomatique* accredited to the republic of New Granada, including no less a personage than Monsignore Barili, the Pope's nuncio, who was sent to settle the dispute between the Government and Archbishop Mosquera, which terminated in the banishment of the latter from the republic.—E. C.

If you feel inclined to have a sketch of my plans for opening the ship canal in question, I will send you a description of them, and also an explanation of two ways of raising capital for the undertaking, to be completed in six or seven years.

I will also send you an account of a "company of pioneers," to consist of 1,116 persons, all suitably organised, and induced, by adequate motives, to act in union, energetically, *under your special direction, if possible* :—1st. To explore the Isthmus for a proper route for the ship canal. 2nd. To survey, in the most accurate manner, all the localities referred to.

In the letter I sent in reply to your favour of the 16th instant, requested to be informed of the name of the London publisher of the work referred to in the report, entitled "the Isthmus of Darien," as I wish to obtain a copy through my bookseller. I hope you will favour me with this information, for I feel a strong interest in the project, and would, were I a younger man, take a personal move in the matter; but am now fast approaching eighty, and can only act as a fingerpost.

I have had, for some time, the whole affair written out, including plans, drawings, elevations and estimates of all the practical points of the undertaking, as well as the profitable cultivation of the borders of the canal for all tropical productions, by free labour, including cotton of the finest qualities (a point of great importance to the manufacturers of Manchester, &c.), and tobacco superior to that of Cuba, as well as much other valuable raw produce from land and mines.

I remain, dear sir,

Yours respectfully,

S. B. ROGERS.

EDWARD CULLEN, Esq., M.D.

EXTRACTS FROM "SAILING DIRECTIONS FOR A PORTION OF THE ISTHMUS OF DARIEN"

BY MR. JOHN PARSONS, MASTER, R.N.,

COMMANDING H.M. SURVEYING VESSEL, SCORPION.

March, 1854.

PUERTO ESCOCES TO SASARDI."

The site of Fort St. Andrew and the canal of the (Scotch) colonists was not exactly known until searched for by Dr. McDermott, H.M.S. Espiegle, and myself, assisted by an Indian who had a faint recollection of there being such a place. After a little trouble, we found the canal, quite perfect; the north entry having been cut through the rock, eight feet deep and twelve wide, and the canal being cut angularly, as a fortification. An embankment stands on the side of the enclosed space, evidently for the purpose of defence against land attacks. We could find no vestiges of habitations; neither were there any guns. These latter, I think,

have been removed by the Spaniards, and, probably, now help to form the barrier around Fort San José at Cartagena.

We dug into several mounds having the appearance of graves, but could find nothing. These were, probably, heaps from the foundation of buildings, and the cemetery may, possibly, have existed at some distance from the fort. I have named the hill on the extremity of Point Escoces Paterson Hill, being the mound the colonists were accustomed to visit in the evening to look towards the sea in the direction of Scotland. [See Warburton on the Isthmus of Darien.]

Several small streams empty themselves into Puerto Escoces; but these are mere rivulets, rising in the first range of hills and occasionally becoming dry. Good water may be obtained from them; but the landing is, at most times, difficult.

The Agla-tomate and Agla-seniqua are streams of from twenty to fifty feet broad, and never dry. The waters in both are excellent, but in rough weather it will be difficult to obtain any from either; at other times, boats may load under cover of the little reef at the mouth of the Agla-seniqua. The banks of these rivers are so densely wooded as to render it impossible to observe the surrounding country from them. Their courses are exceedingly tortuous, and the first party from H.M.S. *Espiegle*, having followed the bed of the Agla-seniqua, arrived at extraordinary conclusions with regard to their supposed positions.

The little rivulet at Sasardi is the best place to water at; being generally smooth, though shallow. Up this rivulet, the Indians paddled us for two miles, making our way through fallen trees and other obstructions with much ingenuity. It has but two feet water, and is ten wide.

The village of Agla-tomate, situated near the mouth of the river, consists of merely a few bamboo huts. These were occupied, during the expedition, by the party from New Granada; and they fortified themselves against any attacks by an outwork of sand enclosing the village.

The village of Sasardi consists of fifteen huts, containing about fifty people. They have some trade with a few American vessels, principally in cocoa, cocoa-nut oil, hammocks; receiving in return, guns, powder, lead, cottons, and culinary utensils. Money is never passed between them; in fact, they know no use for it, except to ornament the female portion of the community, which they do in great profusion. The Indians we met here are of small stature, but well made; and the women the most diminutive little things, averaging from three and a half to four feet in height. They wear nose-rings of gold, with a great quantity of beads and coins in the shape of necklaces and bracelets for the arms and legs. These latter they have so tight as almost to stop circulation, thus making the limbs appear to have an extra number of joints. During our stay they were exceedingly friendly, however anxious to get rid of us. This they did not attempt to

oneal, but expressed great gratification when told we intended to leave. All they wish is to be left alone, and they never allow any of the traders to penetrate the country, or scarcely even to land on the beach. They are exceedingly averse to labour, existing on plaintains, which grow almost spontaneously, hunting, and fishing; at both of which they are exceedingly expert, seldom or never missing their object.

The people of this village have no cattle of any kind, or even poultry. They say it is too much trouble to keep them; and as the woods abound with deer, peccary or wild hog, the wild turkey, and kind of pheasant, and the partridge, they can at all times procure a sufficient quantity of food. They have no cultivation at their plaintain and cocoa grounds, raising no kind of grain or fibrous roots, although the soil would produce them in abundance with a slight amount of labour. Nature, indeed, seems to have provided them with all they desire. They have a small nut which they string on reeds for candles. These emit a powerful light, being of a very oily nature. They have also a berry which answers admirably the purpose of soap.

Great quantities of fish can be caught along the coast, of the kinds common to the West Indies; with plenty of turtle in the months of May and June.

Snakes abound in the woods, and the smaller kinds of vermin are very numerous. Mosquitoes, as may be supposed with a swampy shore, are exceedingly troublesome.

The seasons are divided into two,—dry and wet. The dry season, from January to May, is during the time of the strong trade winds, causing the vapours to pass over the mountains to the Pacific. These are arrested when the winds become lighter, and then the rainy season commences, lasting until December, with fine weather at intervals.

The prevailing wind here is from N.N.W. to N.N.E.; this is the trade wind turned from its direction by the high land of the continent of America, and finding a void in the Gulf of Darien, rushes in to fill it; from January to April we had it constantly blowing in this direction, with an approach to calm at night. In the rainy season the wind ceases at night; and a land wind blows from the mountains with occasional squalls, with rain, from the W.; but I should think it would seldom blow with any force from S.E. or east.

The breezes in the dry season are exceedingly strong, causing heavy sea to exist along this coast; care must be taken in landing in for the land to allow sufficient room for wearing in the event of missing stays, a thing of most frequent occurrence with us.

Hurricanes are unheard of in this quarter, it being sheltered from the land to the eastward; and those gales never pass over the continents, confining themselves principally to the open sea, only passing over small islands.

Earthquakes must be rare in this part of the isthmus. The Indians do not recollect the ground shaking at any time; this fact would be favourable to the permanency of a ship canal when once established.

During our stay (January to April) we found the climate healthy, having no cases of fever, although the men were greatly exposed. The average temperature is about 82° , the atmosphere exceedingly moist and hazy, by exhalation from the sea; the land sometimes cannot be seen more than five miles; such must have been the cause of Mr. Gisborne's mistake with regard to seeing across the intervening portion of the isthmus between his two attainable positions.

The trees on this coast are of the most valuable description; all the materials for ship-building, houses, wharves, &c., being found in the greatest abundance. The country is a mass of trees, averaging from 70 to 100 feet in height, with a growth of under-wood difficult to penetrate. Amongst them are found mahogany, cedar, silk-cotton-tree, ebony, a kind of satinwood, rosewood, fustic, logwood, and many other hard wood and valuable trees, most of them of so dense a texture, as to be of the best kind for the above purposes. There are also several kinds allied to the pine family, that would make excellent spars for vessels.

The Indians build their canoes of cedar, and another red wood, that they call calli-calli, very hard. They appear to last an indefinite time, withstanding all attacks of worm or other insect: even the black wood ant, which can generally destroy any fallen tree, seems to avoid some of these as of too hard a material.

The shores and the sides of the smaller hills are composed of an accumulation of coral deposit, forming in some places a loose kind of coralline limestone; but in general being disconnected. This structure is found to some distance inland, on removing the substratum of alluvial deposit, rendering it probable that the low land from the base of the hills has been formed by drift or upheaval in no very remote age. The cays are mostly heaps of sand, formerly shoals, vegetation taking place as soon as part appears at the surface. This is fully proved by many of the islands being only joined by narrow necks of sand in the middle.

The coast Indians all possess gold, but they derive it from those in the interior; when asked questions about it, they seem reluctant to give information, knowing the avidity with which the white race seek for it.

There are several points which are favourable for the entry of a ship canal, having deep water in close proximity to the shore, with protection outside. From Point San Fulgencio to Escoces, an entrance could not exist, as the sea would constantly damage the works, besides choking the mouth with sand. Should such an enterprise ever be carried out, many works to facilitate the navigation of ships would have to be erected, such as a lighthouse on Isladel Oro, harbour and cross lights, obelisks on the shore,

buoys on the shoals. But of course it will be useless offering any remarks on these points until some determination is arrived at on the grand question.

Scorpion Cay is in lat. $8^{\circ} 54' 52''$ N., long. $77^{\circ} 42' 1''$ W., relative to Fort Charles, Port Royal, assumed to be in 5h. 7m. 23s., or $76^{\circ} 50' 45''$ W. Variation $8^{\circ} 50'$ E, in 1854. High Water, full and change, 11.40. Rise and fall, 1 ft. 6 in. springs, 0 ft. 6 in. neaps.

Scorpion Cay is a small cay half a mile south of the Southern Sasaki Island and three cables' length N.W. of the nearest part of Chimère Island on the inner shore of the island.

[On reference to "The Isthmus of Darien," London, Effingham Wilson, 1852, it will be seen how fully my observations in pp. 62, 65—71, &c., therein, are corroborated by the above extracts from Commander Parsons' Directions.—E. C.]

CAUSES OF FAILURE OF THE EXPEDITION.

It will be evident to any one who takes the trouble of reading the foregoing pages, that the so-called Expedition was entirely managed, or rather mismanaged, by certain "volunteers," whom nobody knew, whose interference had never been expected, and who were all emissaries, either of the Panama Railroad Company, or of the New York Company, for the junction of the Atlantic and Pacific by the Atrato—two companies interested in having a canal across Darien reported to be impracticable.

Thus Mr. Gisborne, losing his self-confidence when he found himself in the bush, placed himself under the guidance of Colonel Codazzi. That experienced bushranger had just sent a most favourable survey* and report of the projected Atrato canal to New York and London, when, hearing of the Darien Expedition, he obtained the appointment of commissioner to it on the part of the government of New Granada. The views he had in seeking such an appointment may be guessed from the above fact, and from the circumstance that he was part proprietor of the lands on the line of the projected canal, above alluded to, by the valleys of the Atrato and Napipi. Hence it was that he led Mr. Gisborne in a circle, and brought him carefully back to the point whence he started, after a couple of days' ramble. Hence his indignation against me for suggesting that he was going wrong, and turning his back to the Pacific, and his declaration that I knew nothing about the country. After this famous exploration, Gisborne lost confidence in him as a pioneer, and the gallant Colonel, having successfully accomplished the object with which he joined the expedition, retired into private life on board the Chimère, where he occupied his leisure (unbroken except by urgent requests from the Indians to take himself and his army away) in drawing up a

* My friend, Mr. Vincent, has a copy of it.

report and an ingenious map of the country, with sections, showing impossible mountains, and all sorts of formidable engineering difficulties.

In like manner, Strain, being quite inexperienced in bush-ranging, put himself under the kindly proffered guidance and safe-conduct of Messrs. Holcomb, Wintthrop and Foster, the two former being engineers from the Panama Railroad line, and the third being the editor of the *Aspinwall Courier*. As soon as they had got Strain on the highest mountain in the country, they deserted him, and very cleverly found their way back to the Cyane, Gisborne and I meeting them close to the beach of Caledonia Bay. These gentlemen then proceeded to Aspinwall, Panama and New York, to report the loss of Strain's party (as if it were a fact), represent the project to be impracticable, and denounce vengeance and lynch law on me for "this humbug on three great nations." These reports produced the effect, so much desired by Wall-street speculators, of raising the Panama railroad stock.

Besides the above gentlemen, Strain was accompanied by a Mr. Avery, and, I believe, three other agents of the Atrato Company.

On the Pacific side it happened in the same way that Captain Kennish and Mr Robert Nelson, engineers of the Atrato Company, found themselves, by a curious coincidence, in Panama, and quite disengaged, precisely at the moment that Commander Prevost was about to start on his expedition, with regard to which I have not yet been able to find whether he had orders or whether, as is most likely, he started "on his own hook;" for the orders to the admiral on the Pacific station, who was at Callao, in Peru, to send a vessel to the Gulf of San Miguel, went out by the same mail that conveyed Mr. Gisborne and me, and could not have reached him for nearly a month *after* our arrival in Caledonia Bay, whereas Prevost landed in Darien a month *before* our arrival there. These experienced bushmen volunteered their valuable services, and led Prevost where they pleased. Nevertheless, from the summit of the highest mountain of the Cordillera, which they ascended, Dr. Ross saw, and reported that he saw, "*a deep and wide valley*" running in the direction of the Atlantic.

Had the arrangements of the Atlantic and Pacific Junction Company of London been as skilfully combined as were those of the two other companies, success would have been certain, and the practicability of the canal placed out of doubt.

As to the naval commanders, the only act that Hancock did was to imprison me and capture me after I had escaped. Captain Hollins had no orders to co-operate, and therefore did nothing whatever. Immediately after the breaking up of the expedition, he sailed off for the river San Juan de Nicaragua, and burned Greytown. Fortunately he sailed off again directly; fortunately, also, Hancock's vessel, the *Espiegle*, was a slow old tub, formerly

captured from the French, for he did not arrive at Greytown until after Hollins had gone. Had these two men met, the peaceful relations between England and the United States might have been seriously endangered.

It is to be hoped, now that the undignified squabbles between England and America about the Mosquito Protectorate are happily at an end, that a new treaty will be drawn up on the basis of the Bulwer and Clayton treaty, and its provisoes put in force, for the furtherance of the project of the junction of the Atlantic and Pacific by the Darien, Atrato, or any other practicable route, and that the above details of mismanagement, which I am obliged to state in vindication of the project, will only be remembered as a warning to the parties who shall conduct the next expedition.

EDWARD CULLEN.

3a, King-street, St. James's, Sept. 30, 1856.

